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Recent Trends in Canadian and American Overseas Trade Through Each Others's Ports

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Canada

RECENT TRENDS IN CANADIAN AND AMERICAN OVERSEAS TRADE THROUGH EACH OTHER'S PORTS

by

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CANADIAN TRANSPORT COMMISSION
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FOREWORD

Recent studies have clearly shown the greater participation of liner shipping companies in the supply of integrated intermodal services through co-ordinated and co-operative intermodal arrangements with the different railways. One of the important implications of these inter-company agreements, aiming at greater efficiency in their respective container activities, is that there is increasing competition, not so much between various ports as between various integrated transportation networks. Without suggesting that the advent of such intermodal approaches has been the cause of so called "cargo diversion", one fact is undeniable: this new transport approach has led, for the shipper, to an enhanced range of cargo routing options. In short, the development of intermodalism has significantly changed the traditional notion of a port's hinterland with respect to the distribution of general cargo.

This paper presents, for the 1982-1984 period, detailed data concerning the routing of Canadian and American overseas cargo passing through each other's ports. In particular, it seeks to delineate the major characteristics and trends of these cargo movements. The report also evaluates the relative importance, for both Canada and the United States, of such cargo routing in their respective liner trades overall.

The present report is the Commission's fourth study on the subject. Following both the recent transportation regulatory reforms and the intensified application of intermodalism in North America, the "diversion" issue is still of particular importance. The views expressed in this study are those of the authors and do not necessarily reflect those of the Canadian Transport Commission.

Richard Lake
Executive Director
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Canada

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Chapter 1

INTRODUCTION

Over the last ten years, Eastern Canadian ports have provided a competitive route for the shipment of general cargo originating from or destined for the U.S. Midwest markets and traded with Western European countries. However, U.S. Pacific ports, such as Seattle and Oakland, have done much the same for Canada's Far East trade. Nevertheless, traffic diversion has had a greater importance in Canada than in the United States. In effect, the proportion of Canadian overseas traffic via U.S. ports relative to the total volume of Canadian liner trade has been much more significant than the volume of American traffic via Canadian ports relative to the total volume of American liner trade.

This paper presents a detailed and concise statistical overview of Canadian and American overseas diverted trade for the period of 1982 through 1984. Not only is it a follow-up to two previous Research Branch studies on the issue ("Canadian and American Overseas Oceanborne Trade Through Each Other's Ports" (1985/04E) and "Canadian and American Overseas Trade Diversion - Perspective and Summary" (WP 20-85-17)) but also, to a degree, it represents a Canadian equivalent to the American publication entitled "U.S. Exports and Imports Transshipped via Canadian ports".

In particular, the report seeks to delineate some of the major characteristics of North American overseas oceanborne trade through each other's ports, expressed in tonnage, with respect to the type of maritime services, the ports of loading and of unloading, the various overseas countries of origin and of destination as well as the type of commodities diverted. It also provides an overall comparison of Canadian and American overseas cargo passing through each other's ports in terms of the net balance of diverted traffic and of the relative importance of the phenomena to each country's total liner trade. It should be noted that in the two previous Research Branch reports mentioned above, the extent of cargo diversion was measured in value. In the present report, tonnage has been adopted as the unit of diversion measurement, due to perceived deficiencies and shortcomings in value data in the original U.S. data for the years 1983

and 1984. Nevertheless, it should be emphasized that value figures presented in the two previous studies remain accurate and valid.

For simplicity and convenience the terms "diverted" and "diversion" are used in this paper, despite their ambiguity and inadequacy, to describe the situation where the overseas trade of one country is handled through the ports of an adjacent country. For a thorough description of the associated concept and definition, readers are invited to see, "Canadian and American Overseas Oceanborne Trade Through Each Other's Ports", prepared by the Research Branch of the Canadian Transport Commission (Report No. 1985/04E, November 1985).

Chapter 2

MAJOR FINDINGS AND OBSERVATIONS

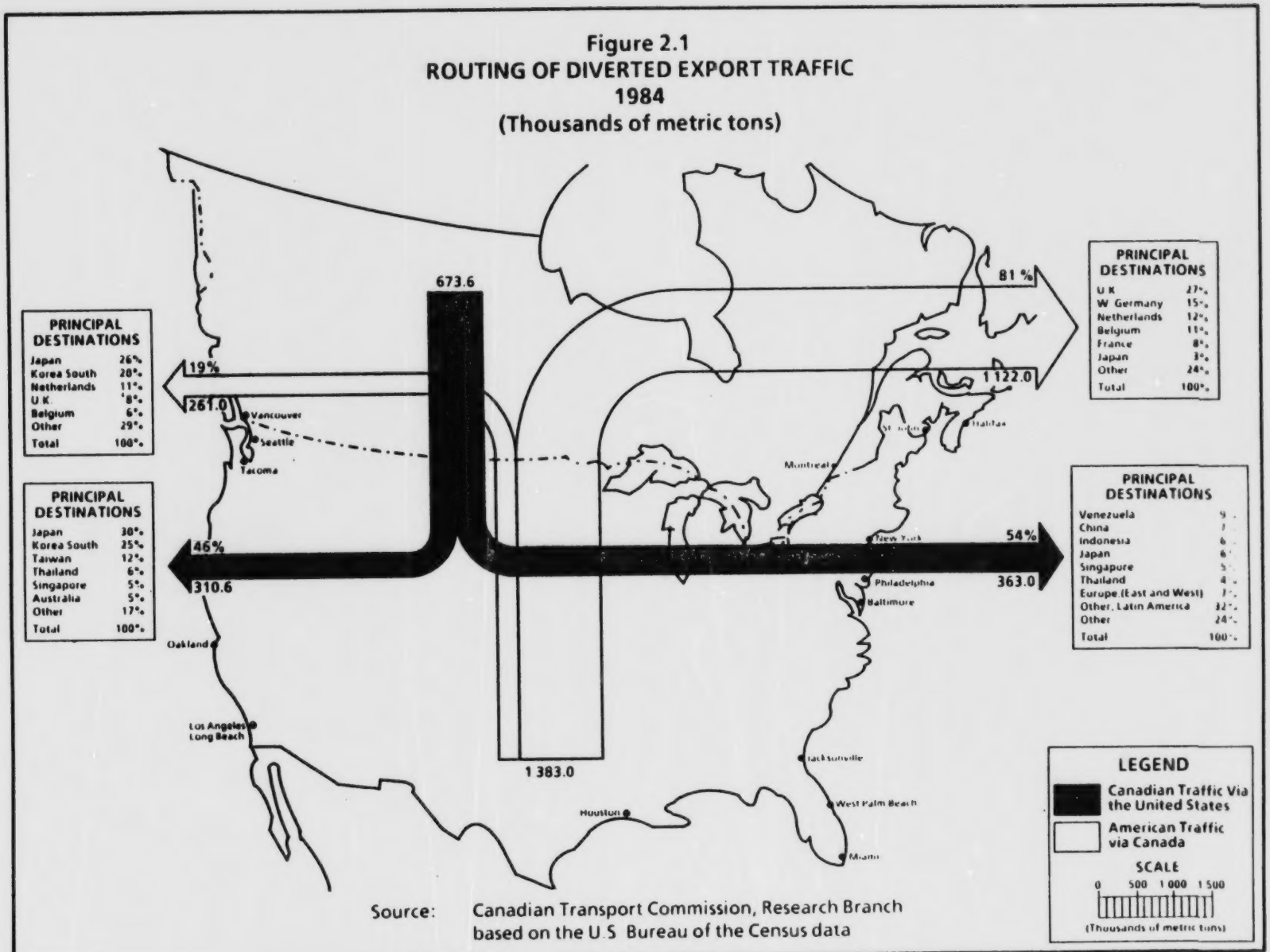
Recent studies on cargo diversion in Canadian and American overseas trade have clearly pointed out that the pattern of routing overseas cargo through each other's ports has been a reflection of the decreasing importance of the international boundary between the two countries in the eyes of both liner shipping and railway industries. These two transportation sectors are increasingly adopting an organizational approach that primarily emphasizes co-ordinated international intermodal transport services. The 1982-1984 statistics on cargo diversion reinforce these two assertions and show that realization of the latent continentalization of container transport networks and related liner vessel itineraries are largely based on the consideration of North America as a single market. Highlighted below are the major findings and observations which can be derived from the present study and which support these general conclusions.

2.1 Overview and Trends

(1) Canadian overseas cargo through American ports is increasingly dominated by the Far East trade. Since 1983, Asian countries have come to represent the most important overseas area of origin and of destination for Canadian diverted trade handled in both Atlantic and Pacific U.S. ports.

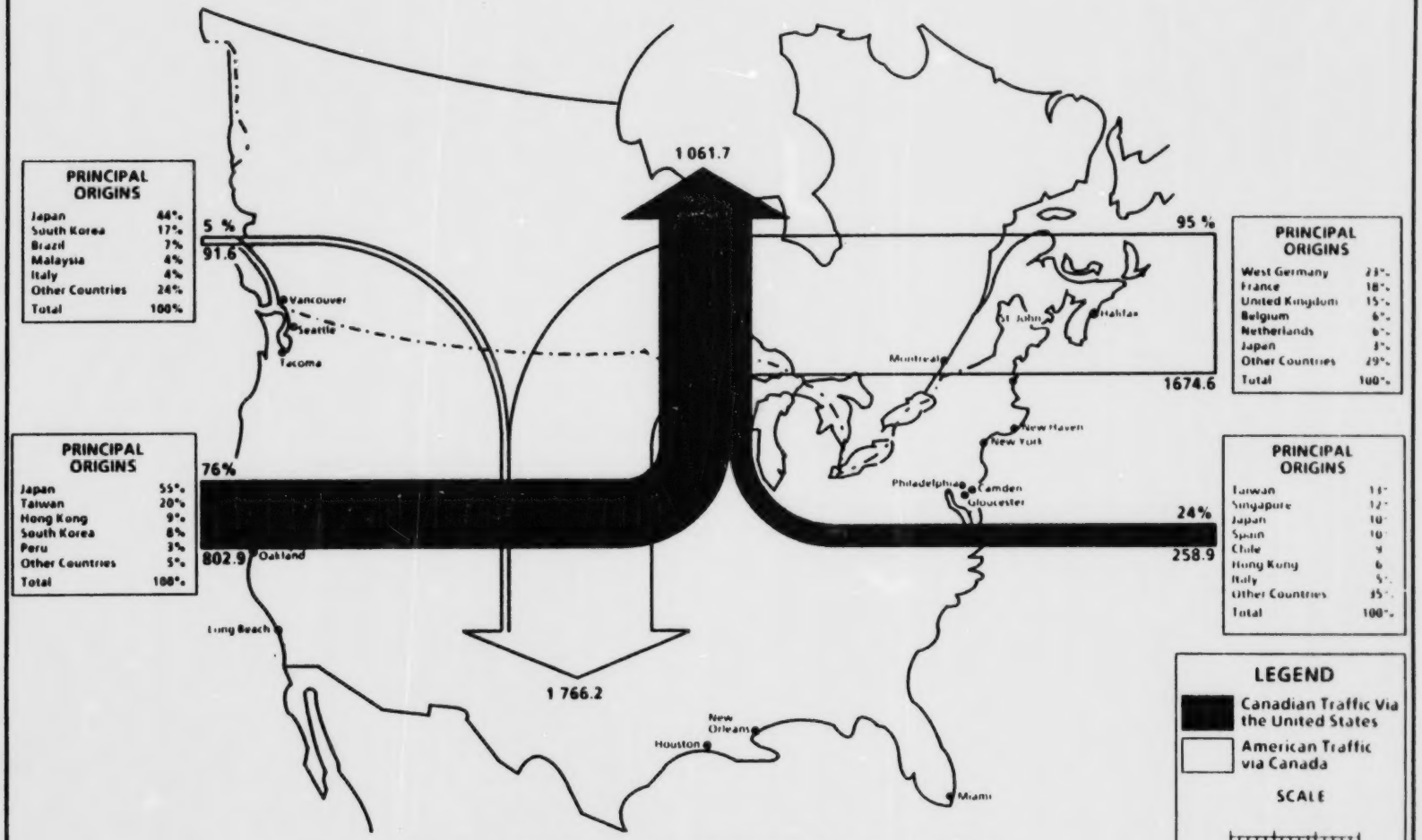
(2) While on the Canadian import side, diverted cargo originating from Western Europe remained relatively stable over the three year period under study, on the export side, there has been a significant reduction in the volume of Canadian goods destined for those European countries through both Western and Eastern American ports.

Figure 2.1
ROUTING OF DIVERTED EXPORT TRAFFIC
1984
(Thousands of metric tons)



Source: Canadian Transport Commission, Research Branch based on the U.S. Bureau of the Census data

Figure 2.2
ROUTING OF DIVERTED IMPORT TRAFFIC
1984
(Thousands of metric tons)



Source Canadian Transport Commission, Research Branch, based on the U S Bureau of the Census Data

(3) Since 1983 South and Central American countries have become the second most important overseas region of destination of Canadian diverted exports. In 1984, this Canadian diverted trade, essentially handled via the U.S. east coast, totalized some 150 thousand metric tons as opposed to only 27 thousand tons of cargo destined for Western Europe.

(4) As depicted in Figures 1 and 2, while Canadian exports passing through American ports were evenly split between Eastern and Western coasts, three quarters of total Canadian diverted imports were handled through U.S. Pacific ports in 1984.

(5) The nature of U.S. overseas cargo through Canadian ports did not show major structural changes in terms of overseas markets involved. Between 1979 and 1984, both outbound and inbound diverted cargoes grew at a yearly rate of 8% to 10%. Western European countries accounted for nearly 75% of both U.S. exports and imports diverted through Eastern Canada over the period under study.

(6) However, some changes in the inland locations of diverted U.S. trade have been observed. On the export side, although the customs district of Detroit tended increasingly to be the major crossing border point (54% in 1984), two other customs districts have also expanded considerably: the customs bureaus of Ogdensburg, (N.Y.) in the East and of Pembina in North Dakota. The share of Pembina has rised from only 2% of the total U.S. diverted cargo tonnage exiting the U.S. territory through western customs districts in 1979 to 26% in 1984.

(7) On the import side, the inland clearance point of Chicago has significantly increased its share from 18% in 1979 to 25% in 1984. However, Detroit's share has been halved, over the same period, from 37% in 1979 to 18% in 1984. It seems reasonable to think, with the greater volumes of cargo cleared in Minneapolis (Minnesota), Milwaukee (Wisconsin) and Cleveland (Ohio), that it has been possible for some liner companies to further extend the intermodal journey of American (import) diverted trade to remote inland markets, by way of competitive rail interline connections. In 1984, the three aforementioned inland points of clearance accounted for 20% of total U.S. inland destinations as opposed to only 6% in 1979.

2.2 Relative Importance of Diversion

Two other aspects of the routing of overseas cargo through each other's ports are the global impact and importance of diversion for both countries and, its particular relevance to specific ports. Because of the different size of the activities of the Canadian and American liner shipping, the relative impact and importance is obviously different for both countries.

(8) In 1984 diverted American cargo through Canada exceeded Canadian cargo through the U.S., by 1.4 million metric tons. The total tonnage of American traffic via Canadian ports, however, accounted for only 4% of total U.S. export and import liner traffic. Whereas, the proportion of Canadian overseas liner trade through U.S. ports was significantly higher: 17% of total Canadian overseas liner exports and 22% of total Canadian overseas liner imports.

(9) Both the ports of New York and Seattle handled an overwhelming proportion of all Canadian diverted trade over time. In the case of New York, Canadian diverted cargo accounted for some 4% of the total tonnage of liner cargo handled in that port in 1983 (data is not available for 1984). More specifically, 8.5% of New York outbound liner cargo originated in Canada and 2.3% of its inbound liner cargo was destined for Canada. In the case of Seattle, 13% of its total liner tonnage in 1983 was Canadian trade. More specifically, in 1983, 19% of Seattle's inbound liner cargo was destined for Canada and 8.4% of its outbound liner cargo originated in Canada.

(10) In the case of Canadian ports, American diverted cargo accounted for nearly one third of total outbound liner cargo and some 41% of inbound liner cargo handled in Canada in 1984.

2.3 Relative Concentration of Canadian Diverted Trade

Another important aspect of diversion for Canada, is the relatively high concentration of traffic in terms of both trading partner countries and commodities diverted.

(11) In 1984, four countries -- Japan, Taiwan, South Korea, Hong Kong -- were the sources for 99% of total Canadian diverted imports originating in Asia and handled through the port of Seattle. Similarly on the export side, five countries -- Japan, South Korea, Taiwan, Thailand and Singapore -- accounted for 85% of total Canadian traffic handled at Seattle.

(12) A similar situation can be observed at the port of New York. In the case of trade with Asian countries, with South and Central American countries or with Western European countries, four or five countries in each area accounted for at least 70% of the outbound as well as inbound total Canadian diverted trade passing through New York.

(13) Not only are there a relatively small number of trading partner countries which accounted for a large proportion of total Canadian diverted trade via the U.S. but also, for each of the dominant countries, four commodities consistently accounted for at least 51% of total Canadian tonnage diverted through both New York and Seattle.

Chapter 3

METHODOLOGY

3.1 Description of Data

Traffic diversion is generally defined as the transportation of a country's overseas trade to a foreign transshipment port when it could have been sent to a domestic seaport.

Statistical data on diversion, whether in Canada or the United States, are not readily available from the official foreign trade data of the two countries. Statistics Canada and the U.S. Bureau of the Census, responsible for their respective country's official statistics, do neither collect, nor compile specific data on traffic diversion.

Nonetheless, Canadian statistics on foreign trade provide indirect information from which diverted Canadian overseas exports can be deduced, by relying on the modes of transport used to bring cargo to Canadian border points.[1] However, in the case of import traffic, the identified mode of transport does not necessarily correspond to the actual mode of entry of commodities into Canada. The mode of transport rather corresponds to that used to bring commodities to the customs office, which is usually located at an inland point distant from the initial point of arrival of commodities in Canada.

Thus, in order to assess cargo diversion for both Canada's export and import traffic, it was necessary to find another data source. An examination of the various statistics produced by the U.S. Bureau of the Census has led to the conclusion that it was possible to identify and to analyse both Canadian and American diverted trade through each other's ports by using U.S. data on foreign trade.

3.2 Source of Data

As indicated above, all data used in this report are based on U.S. foreign trade statistics provided by the U.S. Bureau of the Census. More specifically, data on Canadian overseas trade handled through American ports were compiled from statistical documents SA 305 entitled "U.S. Waterborne Imports (F.a.s. Value) - General Imports" for imports, and SA 705 entitled "U.S. Waterborne Exports (F.a.s Value) - Domestic and Foreign Merchandise" for exports.

Data on American overseas trade via Canada were derived from publications of the U.S. Department of Transportation, Maritime Administration (MARAD), and have been compiled from documents IA 245 and EA 622.[2] Moreover, the annual publication "United States Oceanborne Foreign Trade Routes" by the U.S. Department of Transportation, Maritime Administration was used extensively.[3]

The principal data contained on the statistical tapes and describing each of the transactions are as follows:

Canadian traffic via the United States (SA 305 and SA 705);

- the American port of loading/unloading;
- the overseas port of loading/unloading;
- the country of final destination/origin;
- the type of ocean service;
- a detailed description of products;
- the f.a.s. value of products; and
- the weight of the merchandise.

It should be noted, however, that the data tapes acquired from the U.S. Bureau of the Census cover all international traffic in the United States for a given year.[4] Consequently, the first step is to establish a selection and processing system for the original data in order to create a new statistical database. This new database contains the information required for the study of Canadian diverted cargo. The

following sections discuss the principal stages and the methodology used to create this new database.

3.3 Compilation of Magnetic Tapes on Canadian Overseas Trade Routed Via the United States

The magnetic tapes corresponding to documents SA 305 and SA 705 include all ocean traffic, whether American or Canadian, handled by American ports during a given year. The retrieval of data on commodity flows originating from or destined for Canada was carried out by aid of a distinctive code which has been assigned to all non-American traffic recorded in the original documents. Thus, by excluding all transactions for which the exporting (or importing) country was not the United States, and then by extracting from the remaining data only those transactions classified as originating in (or destined for) Canada and destined for (or originating in) a country other than the United States, it was possible to determine the extent of Canadian overseas export (or import) traffic handled at American ports.

Lastly, because the purpose of the study is to assess Canadian trade routed via the United States, all non-commercial and special transactions were excluded. Furthermore, all petroleum products moved under tanker services as well as military materials, have been excluded from this study.

3.4 Commodity Description

The statistical tapes used to compile the data on Canadian overseas trade diverted via the United States provide an adequate description of the types of commodities involved. Export products are described in terms of "Schedule E Export Classifications"; imported products are listed according to "Schedule A Import Classifications". These two commodity classifications are established on the basis of the "Standard International Trade Classification" (SITC), and thus enable to do certain comparisons with the data of other countries.

Lastly, although all commodities have been originally coded on the basis of four digit commodity classification, the findings of this study are presented using a two or one-digit classification system. These systems, judged adequate for the purpose of this report, distinguish 68 types of commodities and 10 major commodity groups.

FOOTNOTES

[1] A detailed statistical report on the diversion of Canadian overseas exports, based on Canadian external trade statistics for 1981, was produced in 1984 by the Canadian Transport Commission, Research Branch: Acheminement en territoire américain du commerce outre-mer canadien à l'exportation -Marchandises générales, Année 1981, Working Paper WP 20-84-19, Ottawa-Hull, 1984.

[2] U.S. Department of Commerce, Maritime Administration, U.S. Exports Transshipped via Canadian Ports, January 1978 and March 1981; U.S. Department of Transportation, Maritime Administration, U.S. Exports & Imports Transshipped via Canadian Ports, March 1982, July 1983 and October 1985.

[3] U.S. Department of Transportation, Maritime Administration, "United States Oceanborne Foreign Trade Routes", issues of 1984 and 1985.

[4] A detailed description of the nature and characteristics of American statistics can be found in the following publications: U.S. Department of Commerce, U.S. Bureau of the Census, Guide to Foreign Trade Statistics - 1983, September 1983, and U.S. Foreign Trade Statistics, Classifications and Cross-Classifications - 1980, February, 1981.

Chapter 4

OVERVIEW OF CANADIAN AND AMERICAN DIVERTED TRADE

This chapter describes general trends of overseas Canadian traffic via the United States and of American overseas traffic via Canada in recent years. Emphasis have been placed on the total flows of diverted trade through each other's ports, the relative importance of diversion for both countries and finally, the major changes in the diverted Canadian traffic flow over the 1982-1984 period.

4.1 Volume of Diverted Trade

The total volume of Canadian overseas traffic via the United States has fluctuated over the three year period. The level dropped from 1.7 million metric tons in 1982 to 1.4 million tons in 1983 and rose back to 1.7 million tons in 1984. In addition, there has been a structural change in the diverted cargo flows. Increasingly Canadian diverted trade has been concentrated on inbound traffic: over the three year period under study, diverted imports rose by 25% while exports dropped by an equivalent percentage. Hence in 1984, imports accounted for 61% of all Canadian diverted traffic as opposed to 49% in 1982.

In the case of American diverted trade, both inbound and outbound traffic via Canada have increased significantly, mainly between 1983 and 1984. In 1984, the combined U.S. imports and exports via Canada reached 3.1 million tons, an increase of 700 thousand tons over the 1983 level. Much of this growth can be attributed to the increase in diverted imports traffic. Between 1982 and 1984, U.S. diverted exports rose by 14%, whereas imports jumped by 64%, resulting in an increase of the imports share of total U.S. diverted traffic to 56% in 1984. Specific reasons for this increase in diversion of U.S. traffic through Canada have not been documented.

The last part of Table 4.1 shows the total diverted traffic balance between the two countries. As much for imports as for exports the resultant cargo flow balance was in Canada's favour. Increasingly, in terms of metric tons, there has been more American overseas trade via Canada than Canadian overseas trade via the United States. The concept of traffic balance can be further examined by coast. The table 4.2 clearly

Table 4.1

EVOLUTION OF CANADIAN TRAFFIC VIA THE UNITED STATES AND OF AMERICAN TRAFFIC VIA CANADA, 1982-1984

('000's of metric tons)

Year	Exports	Imports	Total
		(1) Canadian Traffic via the United States*	
1982	897.3	849.4	1 746.7
1983	646.6	763.7	1 410.3
1984	673.6	1 061.8	1 735.4
		(2) American Traffic via Canada**	
1982	1 214.4	1 075.7	2 290.1
1983	1 133.5	1 245.7	2 379.2
1984	1 383.0	1 766.2	3 149.2
		(3) Balance of Diverted Traffic (2)-(1)	
1982	317.1	226.3	543.4
1983	486.9	482.0	968.9
1984	709.4	704.4	1 413.8

Source: *United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports - Exports".
**U.S. Department of Transportation, Maritime Administration, "U.S. Exports and Imports Transshipped via Canadian Ports," issues of October 1985 and July 1983.

Table 4.2

CANADIAN TRAFFIC VIA THE UNITED STATES AND AMERICAN TRAFFIC VIA CANADA BY COAST, 1984

('000's of metric tons)

	Canadian Traffic via the United States (1)	American Traffic via Canada (2)	Net Traffic Balance (2)-(1)
East Coast			
Exports	363.0	1 122.0	759.0
Imports	258.9	1 674.6	1 415.7
subtotal	621.9	2 796.6	2 174.7
West Coast			
Exports	310.6	261.0	-49.6
Imports	802.9	91.6	-711.3
subtotal	1 113.5	352.6	-760.9
Total			
Exports	673.6	1 383.0	709.4
Imports	1 061.8	1 766.2	704.4
Total	1 735.4	3 149.2	1 413.8

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports - Exports".

demonstrates the difference prevailing in the pattern on the two coasts. On the west coast, there has been a net advantage for American ports relative to Canadian ones. The volume of Canadian traffic via the U.S. western ports amounted to 1.1 million tons whereas the volume of American traffic via Canada's west coast totaled only 353 thousand tons. Furthermore, the net favourable balance for U.S. Pacific ports has resulted primarily from the import trade, where there has been nearly 9 times more Canadian cargo through U.S. ports than American cargo through Canadian ports. On the east coast, both American exports and imports via Canada largely surpassed Canadian exports and imports via the United States.

4.2 Relative Importance of Diverted Trade

The concept of traffic balance is not necessarily the most appropriate criterion to either evaluate or establish the relative importance of diversion to both countries. The relative importance can be more effectively measured in terms of the diversion rate. The diversion rate, calculated at a national level, represents for a given country the proportion of its own overseas trade handled through ports in a neighbouring country in relation to its total overall overseas trade. For both Canada and the United States, the diversion rates for liner trade are presented in Table 4.3. Unfortunately, because of the limits of the available statistics, it has only been possible, from the U.S. statistics, to calculate U.S. rates of diversion for 1982 and 1983 while for Canada, liner shipping statistics are available only for 1982 and 1984. Nevertheless, Table 4.3 clearly shows that American traffic via Canada has accounted for a very small portion of total U.S. liner trade, with a constant level of 4%. In contrast Canadian liner traffic via the United States has represented a much more significant portion of total Canadian liner traffic, with a diversion rate neighbouring on 20% (almost five times greater than for the United States).

Tables 4.4 and 4.5 demonstrate the relative importance of diverted trade for both Canadian and American port activities. As the Canadian diversion via the U.S. is highly concentrated on New York and Seattle, accounting respectively for 24% and 55% of total Canadian diverted trade, Canadian diverted trade via those two ports is given in Table 4.4. Expressed in terms of total cargo tonnage carried under liner services, Canadian cargo amounted to about 4% of all of the liner traffic handled at the port of New York. Similarly, the importance of both Canadian exports and imports to total liner activities in Seattle was relatively high. In 1983, some 19% of all inbound liner traffic handled through Seattle were destined for Canadian markets, while 8% of that port's outbound traffic originated in Canada.

In respect of Canadian ports, as there are no accurate statistics on liner tonnages handled on a port-by-port basis, the relative significance of diverted American trade for Canadian ports has been measured in terms of total Canadian liner trade. In 1984, American cargo represented one third of total liner cargo tonnage handled at Canadian ports and the significance of American diverted cargo has been increasing for both outbound and inbound liner activities in Canada.

Table 4.3

EVOLUTION OF LINER TRAFFIC DIVERSION RATES*
1982-1984

(in percentage)

	1982	1983	1984
Exports			
- Canadian Trade	16.0	N.A.	16.9
- American Trade	3.6	3.6	N.A.
Imports			
- Canadian Trade	22.8	N.A.	22.2
- American Trade	4.3	4.4	N.A.
Overall			
- Canadian Trade	18.4	N.A.	19.4
- American Trade	4.0	4.0	N.A.

Notes:
N.A. Means that the diversion rate was impossible to calculate.

* Based exclusively on Canadian and American oceanborne foreign trade moved by liner services.

Source: Derived from United States Department of Transportation, Administration, "United States Oceanborne Foreign Trade Routes", Appendix G - Table 2, page 289, September 1983 and 1984; and the United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports -Exports"; and, CTC, Research Branch special tabulations from A6 General Declarations and Ships manifest, Revenue Canada, obtained from Statistics Canada.

Table 4.4

CANADIAN LINER TRADE HANDLED THROUGH THE PORTS OF NEW YORK AND SEATTLE, 1982-1984

('000's of metric tons)

New York:		Total Liner Trade(1)	Canadian Diverted Trade	Proportion of Canadian Cargo (%)
Exports:	1982	3 315.2	259.9	7.8
	1983	2 934.3	249.1	8.5
	1984	N.A.	221.1	N.A.
Imports:	1982	5 940.6	111.4	1.9
	1983	6 860.4	158.6	2.3
	1984	N.A.	193.8	N.A.
Total:	1982	9 255.8	371.3	4.0
	1983	9 794.7	407.7	4.2
	1984	N.A.	414.9	N.A.

Seattle:		Total Liner Trade(1)	Canadian Diverted Trade	Proportion of Canadian Cargo (%)
Exports:	1982	1 926.3	194.6	10.1
	1983	2 240.4	187.7	8.4
	1984	N.A.	274.6	N.A.
Imports:	1982	1 578.9	303.2	19.2
	1983	1 787.2	339.7(2)	19.0
	1984	N.A.	486.6(2)	N.A.
Total:	1982	3 505.2	497.8	14.2
	1983	4 027.6	527.4	13.1
	1984	N.A.	761.2	N.A.

(1) U.S. Oceanborne Foreign Trade under Liner Services.

(2) If road vehicles were included, Canadian diverted trade would have increased to 609.1 thousand metric tons in 1983 and to 955.5 thousand tons in 1984. For 1983, the corresponding proportion of Canadian cargo through Seattle would have been 34% for the imports and 19.8% for total liner trade (exports and imports).

Source: U.S. Department of Transportation, Maritime Administration, "United States Oceanborne Foreign Trade Routes", Appendix G - Table 2, page 289, September 1984; and the United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports - Exports".

Table 4.5

PROPORTION OF AMERICAN DIVERTED TRADE IN TOTAL LINER TRAFFIC HANDLED IN CANADA

('000's of metric tons)

		Total Canadian Liner Traffic	American Diverted Traffic	Proportion of American Cargo (%)
Exports:	1982	4 447.3	1 214.4	27.3
	1983	N.A.	1 133.5	N.A.
	1984	4 393.5	1 383.3	31.5
Imports:	1982	2 732.4	1 075.7	39.4
	1983	N.A.	1 245.7	N.A.
	1984	4 224.4	1 766.2	41.4
Total:	1982	7 179.7	2 290.1	31.9
	1983	N.A.	2 379.2	N.A.
	1984	8 617.9	3 149.2	36.4

Source: Canadian Transport Commission, Research Branch, special tabulations from A6 - General Declaration and Ships manifest, Revenue Canada, obtained from Statistics Canada; and the United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports - Exports".

4.3 Canadian Overseas Markets Involved

Examination, by overseas trade area, of total Canadian tonnage handled via American ports during 1982-84 and of the respective tonnage variations over the same period reveal some important changes. The statistics contained in Table 4.6 clearly indicate the growth and predominance of Canadian trade with Asian countries diverted via American ports for both exports and imports.

As far as diverted Canadian exports are concerned, Western European trade has lost considerably its importance both in tonnage and in percentage. In contrast, there has been an increase in diverted Canadian trade with Central American countries and no change in South American countries' relative importance. Indeed, outbound Canadian traffic via U.S. ports has increasingly been concentrated to two trade zones: Asia-Oceania with 67% of the total diverted exports and Latin America (South and Central Americas) with 22% in 1984.

In respect to Canadian diverted imports, the Asian trade again dominates with a share of 83%. Even excluding "road vehicles" handled via American Pacific ports, the Asian trade accounted for a large portion of total inbound diverted trade i.e., 70% in 1984. Two other trade zones, although significantly less important than the Asian trade, merit attention: the Western European and Latin American countries. In particular, the Western European zone has lost its share in the total Canadian diverted traffic over the period under study, whereas South American countries have shown a significant increase in the tonnage involved. Similar to what has been observed for the outbound diverted trade, the directional flow of inbound diverted traffic tends to be concentrated in two large zones: the predominant Asia-Oceania zone and the growing Latin American trade area.

Table 4.6

CANADIAN TRADE DIVERTED THROUGH THE U.S. BY COUNTRY GROUP OF DESTINATION AND OF ORIGIN

(in percentage of tonnage)

A - Exports

	East Coast			West Coast			Total			1982-1984 Tonnages Variation
	1982	1983	1984	1982	1983	1984	1982	1983	1984	
Western Europe	12.0	9.6	3.8	1.8	0.1	0.2	13.9	9.7	4.0	-71.1%
Eastern Europe	—	0.8	0.2	--	--	--	--	0.8	0.2	..
Middle East	7.2	7.1	4.0	0.1	0.2	0.3	7.3	7.3	4.3	-40.6%
Africa	3.0	2.7	1.6	0.1	--	--	3.1	2.7	1.6	-46.2%
Asia(1)	19.2	22.3	21.1	31.2(1)	32.4	42.5	50.4	54.7	63.6	+26.0%
Oceania	3.2	1.1	1.2	0.6	1.2	2.6	3.8	2.3	3.8	+2.4%
South America	11.0	11.8	11.5	1.2	0.3	0.1	12.3	12.1	11.6	-5.7%
Central America	8.9	10.2	10.4	0.2	—	0.3	9.1	10.2	10.7	+17.7%
Other	0.1	0.2	0.1	--	--	0.1	0.1	0.2	0.2	..
TOTAL	64.7	65.8	53.9	35.3	34.2	46.1	100.0	100.0	100.0	..
Tonnage (thousand metric tons)	436.0	425.4	363.0	237.9(1)	221.2	310.6	673.9(1)	646.6	673.6	—

B - Imports

	East Coast			West Coast			Total			1982-1984 Tonnages Variation
	1982	1983	1984	1982	1983	1984	1982	1983	1984	
Western Europe	11.6	9.3	6.5	3.6	1.2	0.9	15.2	10.5	7.4	-10.7%
Eastern Europe	—	0.1	—	—	—	—	—	0.1	—	..
Middle East	0.1	0.1	0.3	—	—	—	0.1	0.1	0.3	..
Africa	2.8	1.1	0.7	5.4	1.1	—	8.3	2.2	0.7	-85.0%
Asia	8.8	13.1	12.0	58.0	59.8	71.1	66.8	72.9	83.1	+128.8%
Oceania	0.7	0.5	0.3	0.8	0.7	0.5	1.5	1.2	0.8	+4.6%
South America(2)	4.0	2.5	2.8	1.2	7.3	2.9	5.2	9.8	5.7	+98.7%
Central America(2)	0.6	1.2	1.4	2.0	1.7	0.3	2.6	2.9	1.7	+26.4%
Other	0.2	0.3	0.3	—	—	—	0.2	0.3	0.3	..
TOTAL	28.9	28.2	24.3	71.1	71.8	75.7	100.0	100.0	100.0	..
Tonnage (thousand metric tons)	167.0(2)	215.2	258.9	410.1	548.5	802.9	577.1(2)	763.7	1,061.8	+84.0%(2)

Notes:

—: Means a marginal percentage
..: Means not intended to be calculated

(1) In order to better reflect the recent trend on the export side, the singular non-liner shipments of 223.4 thousand metric tons of "metallic minerals and scrap n.e.s." from the port of Skagway to Japan ports were not taken into account in the 1982's percentage calculations presented in this table.

(2) In order to better reflect the recent trend on the import side, particular "miscellaneous chemical products", shipments of 272.4 thousand tons, unloaded at Portland (Maine) in 1982 and which originated in Trinidad and Netherland Antilles in Central America and in Venezuela, were not taken into account in the 1982's . percentage calculations presented in this table.

Source: Canadian Transport Commission, Research Branch based on the United States Bureau of the Census, Magnetic Tapes SA 305 and SA 705, "U.S. Waterborne Imports - Exports".

Chapter 5

CANADIAN OVERSEAS DIVERTED TRADE

The purpose of this chapter is to delineate the major characteristics of Canadian overseas trade diverted via the United States over the 1982-1984 period. Described are the types of maritime services involved, the predominant American and overseas ports of handling, the principal countries of destination and of origin as well as the list of major commodities and commodity groups of Canadian diverted exports and imports.

5.1 Export Trade

Canadian overseas exports, which were diverted via American ports, totaled 897.3 thousand metric tons in 1982 compared to 646.6 in 1983 and 673.6 in 1984. As Table 5.1 indicates, liner shipping services were dominant in the diverted export trade. More specifically, if the "metallic minerals and scrap" shipments are excluded given their single nature[1], the liner trade accounted for more than nine tenths of all Canadian overseas exports via the United States throughout the three year period under study. Non-liner maritime services were significant only for export trade involving the American Gulf Coast where, in 1984, 89% of Canadian diverted exports were loaded onto non-liner ships.

Table 5.1

CANADIAN OVERSEAS EXPORTS DIVERTED VIA THE UNITED STATES
BY COASTAL DISTRICT AND BY TYPE OF MARITIME SERVICES
1982-1984

(thousand of metric tons)

Type of Maritime Services		East Coast					West Coast			
		North Atlantic	South Atlantic	Gulf	Great Lakes	Total	North Pacific	South Pacific	Total	Grand Total
Liner:	1982	311.1	38.5	35.1	0.1	384.8	209.4	19.7	229.1	613.9
	1983	279.0	44.9	20.6	0.0	344.5	194.4	24.2	218.6	563.1
	1984	252.5	53.8	3.5	0.0	309.8	287.6	16.4	304.0	613.8
Non-liner:	1982	12.6	16.7	21.9	0.0	51.2	231.0(1)	1.2	232.2	283.4
	1983	9.5	11.8	59.5(2)	0.1	80.9	2.3	0.3	2.6	83.5
	1984	7.0	17.7	28.5	0.0	53.2	5.9	0.7	6.6	59.8
Total:	1982	323.7	55.2	57.0	0.1	436.0	440.4	20.9	461.3	897.3
	1983	288.5	56.7	80.1	0.1	425.4	196.7	24.5	221.2	646.6
	1984	259.5	71.5	32.0	0.0	363.0	293.5	17.1	310.6	673.6

(1) Some 97% of which are "Metallic Minerals and Scrap. N.E.S." transported from Skagway to various Japanese ports.

(2) Some 40% of which are "Organic Chemical Products" destined for the Netherlands via the Houston-Rotterdam route.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705 "U.S. Waterborne Exports".

5.1.1 Major American Ports of Loading

As far as diverted liner trade is concerned, North Atlantic ports showed a decline of their relative importance in favour of both South Atlantic and North Pacific ports. Of the total Canadian liner traffic loaded in U.S. ports, the relative importance of North Atlantic ports declined from 51% in 1982 to 41% in 1984, as opposed to the increasing importance of the South Atlantic and North Pacific ports, where their respective shares rised from 6% and 34% in 1982 to 9% and 47% in 1984.

It nevertheless remains that the major ports handling Canadian exports were those located on the North Atlantic and on the North Pacific coasts. Table 5.2 shows the predominance of the port of New York on the east coast. Close to 33% of Canadian overseas exports were loaded at the port of New York in 1984, down from 39% in 1983 but up from 29% in 1982. Other ports worth mentioning in the Atlantic coast are those of Miami, West Palm Beach and Philadelphia, all of which showed an increase in significance in 1984 relative to 1982. Baltimore showed a steady and substantial decline through the period 1982-84. By comparison, the Gulf port of Houston showed a different trend, rising, in terms of tonnage and percentage, from 1982 to 1983 but declining from 1983 to 1984. The loading centres of the South Atlantic coast, Jacksonville and Savannah, both capable of handling the second and third generation containerships, are also noteworthy. Jacksonville, with its closeness to Latin American countries, increased substantially its handling of Canadian diverted exports. The total tonnage of Canadian exports via the port of Jacksonville rose from 0.4 thousand metric tons in 1982 to 7.8 in 1984. On the West Coast, the most important port was that of Seattle. The volume of exports loaded at this port increased from 194.6 in 1982 to 274.6 thousand metric tons in 1984. Hence, in 1984 Seattle accounted for some 41% of total Canadian diverted exports. Ports of secondary importance, such as Tacoma and Oakland, barely handled 3% of Canadian diverted exports over the entire period.

Table 5.2

CANADIAN OVERSEAS EXPORTS DIVERTED VIA THE UNITED STATES
BY MAJOR AMERICAN PORT, 1982-1984

(in thousand of metric tons and percentages)

Ports	Tonnages			Percentages		
East	1982	1983	1984	1982	1983	1984
New York, N.Y.	259.9	249.1	221.1	29.0	38.5	32.8
Miami, Fla.	33.2	27.7	38.4	3.7	4.3	5.7
Houston, Tex.	27.5	54.4	25.5	3.1	8.4	3.8
West Palm Beach, Fla.	16.4	18.8	20.9	1.8	2.9	3.1
Philadelphia, Pa.	14.5	19.3	20.5	1.6	3.0	3.0
Baltimore, Md.	31.9	15.1	9.0	3.6	2.3	1.3
Jacksonville, Fla.	0.4	2.8	7.8	-	0.4	1.2
Norfolk, Va.	11.3	3.6	5.4	1.3	0.6	0.8
Camden, N.J.	0.4	0.0	3.1	-	0.0	0.5
Albany, N.Y.	0.0	14.5	3.1	-	2.2	0.5
Savannah, Ga.	1.3	1.9	1.6	0.1	0.3	0.2
Other	39.2	18.2	6.6	4.4	2.8	1.0
Total East	436.0	425.4	363.0	48.6	65.7	53.9
	Tonnages			Percentages		
West	1982	1983	1984	1982	1983	1984
Seattle, Wash.	194.6	187.7	274.6	21.7	29.0	40.8
Tacoma, Wash.	7.0	2.3	13.4	0.8	0.4	2.0
Oakland, Calif.	17.0	15.8	6.6	1.9	2.4	1.0
Los Angeles, Calif.	9.7	1.1	5.3	1.1	0.2	0.8
Long Beach, Calif.	2.7	6.9	4.7	0.3	1.1	0.7
Friday Harbor, Wash.	0.0	0.0	3.1	-	-	0.5
Portland, Ore./ Longview, Wash.	0.7	0.1	2.3	0.1	-	0.3
Other	229.6*	7.3	0.6	25.5	1.1	0.1
Total West	461.3	221.2	310.6	51.4	34.2	46.1
Total	897.3	646.6	673.6	100.0	100.0	100.0

* Of which 223.4 thousand metric tons were handled in the port of Skagway.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

5.1.2 Countries of Destination

The major trade area of destination for Canadian exports diverted via the United States is Asia. Table 5.3 shows that the proportion of Canadian diverted cargo destined for Asia was slightly less than two-thirds in 1982, 55% in 1983 and 64% in 1984. Europe, which represented one-tenth of the Canadian export trade via the U.S. and was the second most important destination area in 1982, accounted for only 4% of the total diverted exports in 1984. Accordingly, Europe declined in significance relative to such areas as South and Central America in 1983 and in 1984. In fact, since 1983, countries of South and Central America have totaled 22% of the Canadian diverted export traffic. However, these changing patterns over the three year period did not influence the main characteristics of Canadian exports via both east and west coasts of the United States. On the west coast, Canadian diverted exports always have been highly oriented toward Asia. Trade via the West Coast and destined for non-Pacific Rim countries has remained marginal. By comparison, Canadian diverted exports via the U.S. east coast have been diversified among various trade zones over the three year period under study.

In accordance with the trend described above, eight out of the top ten destinations for Canadian diverted cargo in 1984 were Asian countries. As Table 5.4 indicates, the most prominent was Japan. It received 17% of total diverted Canadian exports in 1984, up from 14% in 1983 but appreciably below the 1982 level of 38%. It should be noted, however, that two-thirds of diverted exports to this country in 1982 (339 thousand metric tons) were composed of metallic minerals moved by non-liner ships. Other important countries of destination in Asia were South Korea, Taiwan and, to a lesser extent, Singapore. All these three countries showed an increase in relative weight from 1982 to 1984. The most significant increase was seen in diverted exports destined for China. From a mere 0.9 thousand metric ton in 1982, China received 25 thousand metric tons in 1983. However, the volume of diverted exports to China remained more or less unchanged from 1983 to 1984. In contrast, diverted exports to the Netherlands, the most important destination country in Western Europe, dropped significantly from 1983 to 1984, in terms of both tonnage and percentage.

Table 5.3

CANADIAN OVERSEAS EXPORTS VIA THE UNITED STATES
BY WORLD GEOGRAPHICAL ZONE
1982-1984

(in thousand of metric tons and percentages)

	Western Europe	Eastern Europe	Middle East	Africa	Asia	Oceania	South America	Central America	Others	Total
					Tonnages:					
East Coast										
1982	81.0	0.3	48.4	20.3	129.3	21.6	74.4	59.7	1.0	436.0
1983	62.0	5.0	46.0	17.3	144.3	6.9	76.6	66.0	1.3	425.4
1984	25.5	1.3	27.0	11.0	142.1	8.4	77.2	70.1	0.4	363.0
West Coast										
1982	12.4	-	0.9	0.5	433.8*	3.8	8.3	1.4	0.2	461.3*
1983	0.6	-	1.3	0.2	209.3	7.3	2.2	0.1	0.2	221.2
1984	1.5	-	2.3	0.2	286.0	17.6	0.8	1.8	0.4	310.6
Total										
1982	93.4	0.3	49.3	20.8	563.1*	25.4	82.7	61.1	1.2	897.3*
1983	62.6	5.0	47.3	17.5	353.6	14.2	78.8	66.1	1.5	646.6
1984	27.0	1.3	29.3	11.2	428.1	26.0	78.0	71.9	0.8	673.6
					Percentages:					
East Coast										
1982	9.0	-	5.4	2.3	14.4	2.4	8.3	6.7	0.1	48.6
1983	9.6	0.8	7.1	2.7	22.3	1.1	11.8	10.2	0.2	65.8
1984	3.8	0.2	4.0	1.6	21.1	1.2	11.5	10.4	0.1	53.9
West Coast										
1982	1.4	-	0.1	0.1	48.3	0.4	0.9	0.2	-	51.4
1983	0.1	-	0.2	-	32.4	1.2	0.3	-	-	34.2
1984	0.2	-	0.3	-	42.5	2.6	0.1	0.3	0.1	46.1
Total										
1982	10.4	-	5.5	2.4	62.7	2.8	9.2	6.9	0.1	100.0
1983	9.7	0.8	7.3	2.7	54.7	2.3	12.1	10.2	0.2	100.0
1984	4.0	0.2	4.3	1.6	63.6	3.8	11.6	10.7	0.2	100.0

* Of which, 223.4 thousand metric tons of metallic minerals and scrap N.E.S. were shipped from Skagway and destined for Japan.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

Table 5.4

OVERSEAS COUNTRIES OF DESTINATION OF CANADIAN EXPORT TRADE VIA AMERICAN PORTS
1982-1984

(in thousand of metric tons and percentages)

Countries of Destination	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Japan	338.7*	93.1	112.1	37.7	14.4	16.6
South Korea	47.7	51.6	80.3	5.3	8.0	11.9
Taiwan	51.0	47.6	46.2	5.7	7.4	6.9
Singapore	14.1	22.1	35.5	1.6	3.4	5.3
Venezuela	40.9	24.0	33.1	4.6	3.7	4.9
Thailand	22.7	15.2	31.5	2.5	2.4	4.7
Indonesia	22.6	25.4	29.5	2.5	3.9	4.4
China	0.9	25.2	26.3	0.1	3.9	3.9
Hong Kong	26.5	30.0	25.2	3.0	4.6	3.7
Australia	16.3	11.5	23.0	1.8	1.8	3.4
Malaysia	11.7	20.4	17.8	1.3	3.2	2.6
Saudi Arabia	23.9	21.1	14.6	2.7	3.3	2.2
Netherlands	41.2	41.7	14.2	4.6	6.4	2.1
Bahamas	14.4	14.1	12.6	1.6	2.2	1.9
Trinidad	5.1	8.0	11.9	0.6	1.2	1.8
Other	219.6	195.6	159.8	24.4	30.2	23.7
Total	897.3	646.6	673.6	100.0	100.0	100.0

* Of which, metallic minerals accounted for 67%. Excluding these particular non-liner cargoes, total export tonnage would be 111.5 thousand metric tons in 1982, dominated by meat and fish preparations and wood fabricated materials.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

Table 5.5

MAJOR FOREIGN PORTS OF HANDLING OF CANADIAN DIVERTED EXPORTS
VIA THE UNITED STATES
1982-1984

(in thousand of metric tons and percentages)

Foreign Ports of Handling	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Asia						
Kaohsiung, Taiwan	35.2	46.3	73.0	6.3	13.1	17.1
Kobe, Japan	49.0	47.5	57.3	8.7	13.4	13.4
Yokohama, Japan	38.3	32.6	51.4	6.8	9.2	12.0
Hong Kong, Hong Kong	36.8	46.1	44.2	6.5	13.0	10.3
Inchon, South Korea	7.6	22.2	38.4	1.3	6.3	9.0
Djakarta, Java	21.0	20.1	23.4	3.7	5.7	5.5
Singapore, Singapore	10.3	10.0	20.8	1.8	2.8	4.9
Busan, South Korea	23.6	15.2	18.0	4.2	4.3	4.2
Tokyo, Japan	37.5	23.8	16.3	6.7	6.7	3.8
Bangkok, Thailand	16.7	8.9	14.6	3.0	2.5	3.4
Keelung, Taiwan	20.7	21.7	13.9	3.7	6.1	3.2
Shanghai, China	-	9.2	11.6	-	2.6	2.7
Port Kelang, Malaysia	8.6	15.2	11.5	1.5	4.3	2.7
Other	257.8*	34.8	33.7	45.8	10.0	7.8
Total	563.1	353.6	428.1	100.0	100.0	100.0
South America						
Puerto Cabello, Venezuela	11.3	10.6	20.9	13.7	13.5	26.8
Montevideo, Uruguay	0.3	0.9	11.4	0.4	1.1	14.6
La Guaira, Venezuela	10.3	4.6	8.0	12.5	5.8	10.3
Other	60.8	62.7	37.7	73.4	79.6	48.3
Total	82.7	78.8	78.0	100.0	100.0	100.0
Central America						
Nassau, Bahamas	11.8	11.8	10.7	19.3	17.9	14.9
Hamilton, Bermuda	7.6	7.2	9.1	12.4	10.9	12.7
Port-of-Spain, Trinidad	3.1	3.8	7.9	5.1	5.7	11.0
Other	38.6	43.3	44.2	63.2	65.5	61.4
Total	61.1	66.1	71.9	100.0	100.0	100.0
Western Europe						
Rotterdam, Netherlands	45.8	42.6	15.9	49.0	68.1	58.9
Other	47.6	20.0	11.1	51.0	31.9	41.1
Total	93.4	62.6	27.0	100.0	100.0	100.0
Oceania						
Sydney, Australia	5.2	6.0	11.3	20.5	42.3	43.5
Melbourne, Australia	6.7	4.8	7.0	26.4	33.8	26.9
Other	13.5	3.4	7.7	53.1	23.9	29.6
Total	25.4	14.2	26.0	100.0	100.0	100.0

* Some 28% of the total diverted traffic destined for Asia (158.2 thousand metric tons) were unloaded at the Japanese port of Onahama in 1982.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

5.1.3 Major Overseas Ports of Unloading

Table 5.5. lists the principal overseas ports which have handled Canadian diverted exports. Concerning the Far Eastern countries, four ports, Kaohsiung, Kobe, Yokohama and Hong Kong, received more than a quarter of the total diverted traffic to Asia in 1982, and more than half in 1984. Kaohsiung and Hong Kong were particularly important as international transshipment ports (unloading traffic destined for other countries) whereas ports such as Kobe and Yokohama served more directly the Japan-Canada trade. Ports with the greatest increase in significance over the three year period were Kaohsiung in Taiwan, Yokohama in Japan and Inchon in South Korea.

Among the South American ports, Puerto Cabello, in Venezuela, was almost twice as important as any other South American port. In 1984, this port accounted for 27% of total Canadian diverted exports destined for South America. The port of La Guaira, also in Venezuela, which was in 1982 as important as Puerto Cabello, has seen its importance declined to 10% in 1984. In Central America and Antilles, the major ports of handling of Canadian diverted cargo were those of Nassau (Bahamas), Hamilton (Bermuda), and more recently Port-of-Spain (Trinidad).

In Western Europe, the predominant port was Rotterdam. Known as an international transshipment port, it accounted for 49% of total Canadian diverted exports to Western Europe in 1982, 68% in 1983 and 59% in 1984. However, the volume shipped through this port declined considerably from 1983 to 1984, falling from 43 thousand metric tons to 16 thousand.

Table 5.6

CANADIAN DIVERTED EXPORTS VIA THE UNITED STATES
BY MAJOR AGGREGATED COMMODITY GROUP
1982-1984

(in thousand of metric tons and percentages)

Commodity Groups	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Food products	163.8	153.4	127.1	18.3	23.7	18.9
Beverages and tobacco	4.0	3.2	2.7	0.4	0.5	0.4
Raw materials	385.3	109.8	228.1	42.9	17.0	33.9
Mineral fuels, lubricants and related products	0.2	0.1	0.2	-	-	-
Oils and greases	1.0	0.5	0.6	0.1	0.1	0.1
Chemicals	101.1	155.9	110.7	11.3	24.1	16.4
Manufactured goods	153.0	143.2	131.6	17.1	22.2	19.5
Machinery and equipment	46.5	35.5	37.3	5.2	5.5	5.5
Automobiles	31.2	30.6	20.8	3.5	4.7	3.1
Finished products	10.9	14.4	14.5	1.2	2.2	2.2
Other	0.3	-	-	-	-	-
Total	897.3	646.6	673.6	100.0	100.0	100.0

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

5.1.4 Commodity Description

The commodity composition of the Canadian export trade diverted via the United States has been somewhat volatile over the 1982 - 1984 period. However, the following four major groups of commodities have dominated over the said period: "Raw Materials", "Manufactured Goods", "Food Products" and "Chemicals". As can be seen from Table 5.6, the four groups accounted for not less than 87% of total Canadian diverted exports over the three year period.

The most volatile group of commodities was the "Raw Materials" group: recording a high of 43% of total diverted exports in 1982, down to a low of 17% in 1983 and up again to 34% in 1984. The other three major groups of commodities had an opposite trend, increasing from 1982 to 1983 and declining from 1983 to 1984. Commodity groups such as "Automobiles" tended to be more stable and did not present any significant declines or increases.

Overall, there is no evidence of increased or of decreased concentration in composition of either commodity groups or commodity categories. According to Table 5.7, two most important commodity categories, "Pulp and Paper Waste" and "Wood, Wood Fabricated Materials, Cork", showed a similar increase in relative importance. "Pulp and Paper Waste" constituted 11% of total diverted Canadian exports in 1984 as opposed to 5% in 1982. Similarly, "Wood, Wood Fabricated Materials, Cork", which made up 3% in 1982, accounted for 11% in 1984. Other noteworthy commodities such as "Resin, Rubber and Synthetic Plastic", "Paper and Cardboard Products" and "Meat and Meat Preparations" were more significant in 1983 than 1982 but less significant in 1984 than 1983 in relative terms.

Nevertheless, Table 5.8 illustrates how a few commodity categories dominate specific trade through New York and Seattle and destined for selected countries in 1984. As an example, although there have been a variety of commodities involved in the traffic flow between Seattle and Japan, 72% of the total traffic was composed of two export products: "Wood, Wood Fabricated Materials, Cork" and "Paper and Cardboard Products". Similarly, the trade between Seattle and South Korea was dominated by three products: "Pulp and Paper Waste", "Leather, Hides and Crude Pelts" and "Wood, Wood Fabricated Materials, Cork". These commodities accounted for 81% of total diverted

Table 5.7

CANADIAN DIVERTED EXPORTS VIA THE UNITED STATES
BY MAJOR TYPE OF COMMODITIES
1982-1984

(in thousand of metric tons)

Commodities	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Pulp and paper waste	42.7	44.2	76.4	4.8	6.8	11.3
Wood, wood fabricated materials, cork	31.7	13.3	72.4	3.5	2.1	10.7
Resin, rubber and synthetic plastic	60.2	85.4	70.0	6.7	13.2	10.4
Paper and cardboard products	20.9	46.1	46.6	2.3	7.1	6.9
Meat and meat preparations	54.4	47.3	31.5	6.1	7.3	4.7
Cereals, flour and preparations	21.1	17.9	29.7	2.4	2.8	4.4
Fruits and vegetables	33.2	35.5	27.0	3.7	5.5	4.0
Nonferrous metals	46.6	35.2	25.8	5.2	5.4	3.8
Fertilizer and crude minerals except coal	12.1	6.9	22.3	1.3	1.1	3.3
Metal fabricated products, N.E.S.	19.3	14.6	21.9	2.2	2.3	3.3
Road vehicles	31.2	30.6	20.8	3.5	4.7	3.1
Miscellaneous chemical products, N.E.S.	14.5	19.0	17.9	1.6	2.9	2.7
Leather, hides and crude pelts	15.9	8.9	15.4	1.8	1.4	2.3
Oil seed, oil fruit	8.6	8.4	14.7	1.0	1.3	2.2
Milk products and eggs	12.2	14.2	14.6	1.4	2.2	2.2
Organic chemical products	13.8	43.4	13.3	1.5	6.7	2.0
Metallic minerals and scrap, N.E.S.	240.6	7.0	5.7	26.7	1.1	0.8
Total	679.0	477.9	526.0	75.7	73.9	78.1

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

Table 5.8

COMMODITY CONCENTRATION OF CANADIAN EXPORT TRADE VIA THE PORTS OF NEW YORK AND SEATTLE BY MAJOR COUNTRY OF DESTINATION
1984

A: Via New York

Asian Countries (125.5 thousand metric tons)

Indonesia	16.9%	1 product = 80.7%
China	15.4%	2 products = 74.3%
Japan	14.4%	2 products = 81.9%
Singapore	14.1%	3 products = 68.2%
Thailand	10.6%	3 products = 83.5%
Other	28.6%	
	100.0%	

Central American Countries (28.8 thousand metric tons)

Bermuda	31.6%	4 products = 50.5%
Panama	30.8%	2 products = 59.1%
Trinidad	17.4%	2 products = 59.1%
Dominican Republic	12.2%	4 products = 79.2%
Other	8.0%	
	100.0%	

South American Countries (24.2 thousand metric tons)

Chile	26.0%	3 products = 54.5%
Brazil	18.2%	3 products = 88.9%
Ecuador	14.9%	1 product = 41.3%
Peru	10.7%	3 products = 50.9%
Other	30.2%	
	100.0%	

Western European Countries (10.7 thousand metric tons)

United Kingdom	43.9%	3 products = 59.3%
France	15.9%	3 products = 75.6%
West Germany	14.0%	4 products = 62.1%
Netherlands	9.3%	4 products = 56.6%
Other	16.9%	
	100.0%	

Table 5.8 (Cont'd)

COMMODITY CONCENTRATION OF CANADIAN EXPORT TRADE VIA THE PORTS OF NEW YORK AND SEATTLE BY MAJOR COUNTRY OF DESTINATION
1984

B: Via Seattle

Asian Countries (270.1 thousand metric tons)

Japan	32.1%	2 products = 71.8%
South Korea	28.6%	3 products = 80.9%
Taiwan	13.3%	3 products = 73.4%
Thailand	6.0%	5 products = 96.0%
Singapore	5.4%	2 products = 84.4%
Hong Kong	3.9%	5 products = 68.4%
India	2.4%	3 products = 88.2%
Malaysia	1.6%	1 product = 70.6%
Philippines	1.6%	3 products = 79.4%
Indonesia	1.5%	3 products = 78.8%
Other	3.6%	
	100.0%	

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 705, "U.S. Waterborne Exports".

exports to that country. The level of commodity concentration was equally important for most trade routes involving New York or Seattle and Asian countries. Furthermore, traffic flows between New York and the major areas of destination such as Central and South America and Western Europe were also dominated by a limited number of commodities (see Appendix 1).

In summary, the traffic flow of Canadian exports diverted through U.S. ports can be characterized as being highly segmented and concentrated. This holds true not only in terms of type of maritime services employed, but also in terms of American ports of loading, world geographical areas of destination, countries of destination, overseas ports of unloading as well as the commodity composition of Canadian diverted trade.

5.2 Import Trade

The volume of Canadian imports diverted via the United States has fluctuated considerably, declining between 1982 and 1983 but increasing between 1983 and 1984. However, if particular non-liner shipments are excluded[2], the tonnage of diverted imports has steadily increased over the three year period: 577.1 thousand metric tons in 1982, 682.0 in 1983 and 867.5 in 1984.

5.2.1 Type of Maritime Services

Both liner and non-liner services carried progressively more Canadian diverted import cargo over the three years. The liner services, the prevailing type of maritime service, seem however to carry a progressively lesser proportion. Their relative importance declined from 85% in 1982 to 81% in 1984. In addition to "road vehicles" imported via Seattle, the penetration of non-liner shipping has been most noticeable on the South Pacific and Gulf coasts. On the South Pacific Coast, shifting from liner to non-liner shipping is evident. Tonnage transported by liner services has dropped by 13 thousand metric tons over the 1982-1984 period, while tonnage carried by non-liner services has increased by 36 thousand metric tons. Similarly, in terms of percentage, non-liner services via Gulf ports has grown substantially from 1983 to 1984. Despite the changes mentioned above, there is a certain stability in the coastal pattern for unloading Canadian diverted imports from 1982 through 1984.

Table 5.9

CANADIAN OVERSEAS IMPORTS DIVERTED VIA THE UNITED STATES BY COASTAL DISTRICT AND BY TYPE OF MARITIME SERVICES
1982-1984

(in thousand of metric tons)

Type of Maritime Services		East Coast					West Coast			Grand Total
		North Atlantic	South Atlantic	Gulf	Great Lakes	Total	North Pacific	South Pacific	Total	
Liner:	1982	127.4	0.2	1.7	0.0	129.3	312.0	48.8	360.8	490.1
	1983	164.2	1.9	2.5	0.0	168.6	366.1	39.4	405.5	574.1
	1984	194.0	3.4	5.5	0.0	202.9	466.6	35.8	502.4	705.3
Non-liner:	1982	308.5(1)	0.1	1.4	0.0	310.0	47.6	1.7	49.3	359.3
	1983	44.3	0.3	1.9	0.1	46.6	136.2(2)	6.8	143.0	189.6
	1984	47.5	0.4	8.1	0.0	56.0	262.6(3)	37.9	300.5	356.5
Total:	1982	435.9	0.3	3.1	0.0	439.3	359.6	50.5	410.1	849.4
	1983	208.5	2.2	4.4	0.1	215.2	502.3	46.2	548.5	763.7
	1984	241.5	3.8	13.6	0.0	258.9	729.2	73.7	802.9	1 061.8

(1) 272.3 thousand metric tons of "Miscellaneous Chemical Products, N.E.S." received in Portland, of which 113.9 originated in Trinidad, 45.4 in Netherland Antilles and 113.0 in Venezuela.

(2) 81.7 thousand metric tons of "Road Vehicles", most of which originating in Japan and routed from Tokyo to Seattle.

(3) 194.3 thousand metric tons of "Road Vehicles", originating in Japan and routed from Kobe to Seattle.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

5.2.2 Major American Ports of Unloading

While total Canadian diverted imports through the American east coast ports fell by 41% from 1982 to 1984, they almost doubled on the west coast over the same period. Indeed, more than three-quarters of all diverted Canadian imports were unloaded on the American west coast in 1984.

As Table 5.10 indicates, the leading port of handling on the American Pacific coast is clearly Seattle. This port alone received about two-thirds of total Canadian diverted imports in 1984. Its tonnage has increased by 125% over the three years rising from 303 thousand metric tons in 1982 to 681 thousand tons in 1984. The port of Oakland, the second most important port on the west coast in 1984 (with 64 thousand metric tons), showed an increase of 150% between 1982 and 1984. In contrast, tonnage handled at the port of Tacoma has decreased by 13% over the same period despite a significant increase registered in 1983. Other ports on the west coast, apart from the port of San Francisco, which has handled a steadily declining volume of diverted imports, exhibit no definitive trend. Similar to what has been observed on the west coast, the unloading pattern on the east coast has increasingly been centered on one port, New York. Tonnage unloaded at the port of New York increased from 111 thousand metric tons in 1982 to 194 in 1984, an increase of 74%. Other ports on the rise are Houston and New Orleans on the Gulf coast, and New Haven and Savannah on the Atlantic coast. Ports on the decline are the North Atlantic ports of Philadelphia and Camden. Baltimore does not rate.

Table 5.10

CANADIAN OVERSEAS IMPORTS DIVERTED VIA THE UNITED STATES BY MAJOR AMERICAN PORT, 1982-1984

(in thousand of metric tons and percentages)

Ports	Tonnages			Percentages		
East	1982	1983	1984	1982	1983	1984
New York, N.Y.	111.4	158.6	193.8	13.1	20.8	18.3
Philadelphia, Pa	20.1	17.6	15.2	2.4	2.3	1.4
Gloucester, N.J.	11.4	18.1	14.0	1.3	2.4	1.3
Houston, Tex.	2.0	2.3	6.8	0.2	0.3	0.6
New Haven, Conn.	0.5	1.1	6.1	0.1	0.1	0.6
Camden, N.J.	11.6	8.3	5.8	1.4	1.1	0.5
New Orleans, La.	1.0	1.2	3.6	0.1	0.2	0.3
New Bedford, Mass.	6.8	2.5	2.9	0.8	0.3	0.3
Savannah, Ga.	0.0	0.2	0.6	-	-	0.1
Other	274.5*	5.3	10.1	32.3	0.7	0.9
Total East	439.3	215.2	258.9	51.7	28.2	24.3
West						
Seattle, Wash.	303.2	421.4	680.9	35.7	55.2	64.1
Oakland, Calif.	25.7	15.1	64.3	3.0	2.0	6.1
Tacoma, Wash.	55.7	80.6	48.3	6.6	10.6	4.5
Long Beach, Calif.	4.0	6.5	6.0	0.5	0.9	0.6
San Francisco, Calif.	10.4	4.6	1.9	1.2	0.6	0.2
Los Angeles, Calif.	9.7	19.8	0.9	1.1	2.6	0.1
Other	1.4	0.4	0.6	0.2	0.1	0.1
Total West	410.1	548.5	802.9	48.3	71.8	75.7
Grand Total	849.4	763.7	1 061.8	100.0	100.0	100.0

* Portland accounted for 272.3 thousand metric tons as detailed in Note (1) of Table 5.9.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

5.2.3 Countries of Origin

Throughout the three year period, Asia has been the principal and progressively dominant area of origin for Canadian diverted imports. The share of Asian countries was increased by 129% between 1982 and 1984, registering a relative importance of 83% in 1984 of total Canadian diverted imports. The Table 5.11 also shows a significant decline in the total diverted tonnage originating in Latin American countries and Africa. Between 1982 and 1984 imports originating in these two country groups have fallen by 75% and 85%, respectively. However, these two declines are essentially related to single non-liner shipments of "miscellaneous chemical products" imported through the port of Portland (Maine) in 1982. If these particular shipments were excluded, an increase of diverted trade originating in both South and Central American countries would be seen; this appears to better reflect the recent trend in these two trade zones.

It would appear that the directional pattern of diverted imports on the east coast is different from that on the west coast. On the Atlantic coast, Asia and, to a lesser extent, Western Europe dominated the overseas areas of origin in 1983 and 1984. For diverted imports on the west coast, Asia was by far the major area of origin loading more than 80% of the total diverted imports in 1982 and 94% in 1984, with a major increase of more than 400 thousand metric tons between those two years. South America exceeded Africa and Western Europe to become the second most important area of origin of Canadian imports handled at U.S. Pacific ports for the last two years.

Asian countries such as Japan, Taiwan, Hong Kong and South Korea are the prevailing countries of origin. Referring to Table 5.12, these countries accounted for 39% of total diverted imports in 1982, 65% in 1983, 77% in 1984. This indicates the magnitude of the increases in volume originating from all four of these countries. Another Asian country which showed a similar trend is Singapore, increasing its tonnage from 15 to 31 thousand metric tons over the three year period. In comparison, imports from the Philippines have declined in magnitude, down from 19 thousand metric tons in 1982 to 9 tons in 1984. Two among the top ten countries of origin were South American nations -- Chile and Peru -- the former showing a steady increase in tonnage while the latter fluctuating widely. Among Western European countries, only Spain has shown a

slight increase in relative significance whereas the volume imported from France declined in terms of both tonnage and of percentage.

Table 5.11

CANADIAN OVERSEAS IMPORTS VIA
THE UNITED STATES BY WORLD GEOGRAPHICAL ZONE
1982-1984

(in thousand of metric tons and percentages)

	Western Europe	Eastern Europe	Middle East	Africa	Asia	Oceania	South America	Central America	Other	Total
					Tonnages:					
East Coast										
1982	67.1	0.2	0.8	16.3	50.9	4.1	136.0*	162.9**	1.0	439.3
1983	71.1	0.4	1.1	8.4	100.4	3.4	19.1	9.2	2.1	215.2
1984	68.9	0.5	2.9	7.2	128.2	3.3	29.3	15.2	3.4	258.9
West Coast										
1982	20.7	0.1	0.1	31.7	334.7	4.6	6.9	11.3	-	410.1
1983	9.3	0.1	0.1	8.2	457.1	5.2	55.8	12.7	-	548.5
1984	9.5	-	0.0	0.0	753.9	5.8	30.1	3.5	0.1	802.9
Total										
1982	87.8	0.3	0.9	48.0	385.6	8.7	142.9*	174.2**	1.0	849.4
1983	80.4	0.5	1.2	16.6	557.5	8.6	74.9	21.9	2.1	763.7
1984	78.4	0.5	2.9	7.2	882.1	9.1	59.4	18.7	3.5	1 061.8
					Percentages:					
East Coast										
1982	7.9	-	0.1	1.9	6.0	0.5	16.0	19.2	0.1	51.7
1983	9.3	0.1	0.1	1.1	13.1	0.5	2.5	1.2	0.3	28.2
1984	6.5	-	0.3	0.7	12.0	0.3	2.8	1.4	0.3	24.3
West Coast										
1982	2.5	-	-	3.7	39.4	0.6	0.8	1.3	-	48.3
1983	1.2	-	-	1.1	59.8	0.7	7.3	1.7	-	71.8
1984	0.9	-	-	-	71.1	0.5	2.9	0.3	-	75.7
Total										
1982	10.4	-	0.1	5.6	45.4	1.1	16.8	20.5	0.1	100.0
1983	10.5	0.1	0.1	2.2	72.9	1.2	9.8	2.9	0.3	100.0
1984	7.4	-	0.3	0.7	83.1	0.8	5.7	1.7	0.3	100.0

*of which, 113 thousand tons of miscellaneous chemical products were imported from Venezuela.
**of which, 159, 4 thousand tons of miscellaneous chemical products were imported from Trinidad and the Netherland Antilles.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census. Magnetic Tapes SA 305, "U.S. Waterborne Imports".

Table 5.12

OVERSEAS COUNTRIES OF ORIGIN OF CANADIAN IMPORT TRADE VIA AMERICAN PORTS 1982-1984

(in thousand of metric tons and percentages)

Countries of Origin	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Japan	183.0	269.8	471.8	21.5	35.3	44.4
Taiwan	59.3	107.6	191.6	7.0	14.1	18.0
Hong Kong	59.2	70.3	87.9	7.0	9.2	8.3
South Korea	32.5	47.7	69.6	3.8	6.2	6.6
Chile	15.3	23.6	33.1	1.8	3.1	3.1
Singapore	15.2	26.8	30.8	1.8	3.5	2.9
Spain	16.4	14.3	25.6	1.9	1.9	2.4
Peru	4.0	46.8	20.8	0.5	6.1	2.0
Italy	20.1	20.0	13.8	2.4	2.6	1.3
West Germany	13.7	12.2	12.2	1.6	1.6	1.1
China	11.6	13.3	10.3	1.4	1.7	1.0
Philippines	19.1	13.4	9.1	2.2	1.8	0.9
France	15.3	9.7	7.8	1.8	1.3	0.7
Australia	6.1	6.8	6.9	0.7	0.9	0.6
United Kingdom	4.1	2.9	6.1	0.5	0.4	0.6
Other	374.5*	78.5	64.4	44.1	10.3	6.1
Total	849.4	763.7	1 061.8	100.0	100.0	100.0

*See Note (1) of Table 5.9.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA305, "U.S. Waterborne Imports."

5.2.4 Major Overseas Ports of Loading

The major overseas ports involved in the handling of Canadian diverted imports, by the major area of origin are listed in Table 5.13. With respect to Asian countries, four ports accounted for 72% of total diverted imports in 1984. Those ports are Kobe, Kaohsiung, Hong Kong and Yokohama. The port of Kobe in particular showed a substantial 306% increase in the handling of diverted imports and handled more than a third of the trade. Similarly to what has been observed for exports, Kaohsiung and, to a lesser extent, Hong Kong were two other major international transshipment ports on the Asian continent with respect to imports. Tonnage shipped through both of these ports has significantly increased from 1982 to 1984. Among Western European ports, two ports of Spain and the port of Antwerp in Belgium showed an increasing trend in the loading of diverted imports to Canada. The traditional international transshipment port of Rotterdam in Netherlands handled less diverted imports in 1984 than 1982. In particular, its relative importance in terms of the total European originating imports declined from 12% in 1983 to 8% in 1984. In South America, the dominant port was Callao in Peru. However, it should be noted that three out of the top four ports were located in Chile. They are Valparaiso, Antofagasta and San Antonio.

5.2.5 Commodity Description

The commodity composition of the diverted Canadian import trade has changed considerably from 1982 to 1984. According to Table 5.14, the major commodity groups which have lost relative importance (in terms of percentage) were "Food Products", "Beverages and Tobacco" and "Chemicals". Commodity groups such as "Machinery and Equipment", "Automobiles" and "Finished Products" have increased their weight, however. In other words, the diverted import trade has increasingly been concentrated toward products with higher unit value.

The above trend is confirmed in Table 5.15. Most of the finished products have been on the increase over the three years. The most important commodities were "Road Vehicles", "Miscellaneous End Products" "Metal Fabricated Products, N.E.S." and "Electric Machines and Equipment". In contrast, raw materials and, to a lesser extent, semi-finished products have been on the decline. They were "Fruits and Vegetables", "Non-ferrous Metals", "Iron and Steel" and "Beverages". Without suggesting an increase

or a decrease in commodity concentration, there is a definite shift away from low-valued toward high-valued products.

As observed in the case of diverted Canadian exports, the commodity concentration has been significantly high for many of the major trade routes. Table 5.16 and Appendix 1 show that imports originating in Japan and handled via Seattle were dominated by six products. In particular, "Road Vehicles" accounted for 55% of the total diverted trade from that country. Similarly, two or three products represented more than half of other Canadian imports through Seattle or New York and originating in Asia or Western Europe. However, concentration at the individual commodity level is much more pronounced for diverted imports from several Central American and Caribbean nations through New York. For example, two products, "Coffee, cacao, tea and spices" and "Fruits and Vegetables" accounted for 95% of total diverted imports from the Dominican Republic, while "Meat and meat preparations" and "Coffee, cacao, tea and spices" were the only two products imported from Honduras via New York.

Table 5.13

MAJOR FOREIGN PORTS OF HANDLING OF CANADIAN DIVERTED IMPORTS
VIA THE UNITED STATES
1982-1984

(in thousand of metric tons and percentages)

Foreign Ports of Handling	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Asia						
Kobe, Japan	80.5	78.3	326.9	20.9	14.0	37.1
Kaohsiung, Taiwan	33.2	60.7	124.1	8.6	10.9	14.1
Hong Kong, Hong Kong	59.9	76.4	92.3	15.5	13.7	10.5
Yokohama, Japan	54.9	68.7	85.9	14.2	12.3	9.7
Busan, South Korea	28.1	45.5	68.5	7.3	8.2	7.8
Keelung, Taiwan	25.7	42.6	60.3	6.7	7.6	6.8
Singapore, Singapore	0.5	9.1	31.8	0.1	1.6	3.6
Shinizu, Japan	12.2	15.3	15.5	3.2	2.7	1.8
Tokyo, Japan	13.8	90.5	13.3	3.6	16.2	1.5
Shanghai, China	7.4	10.1	12.9	1.9	1.8	1.5
Osaka, Japan	10.6	9.2	9.8	2.7	1.7	1.1
Nagoya, Japan	6.4	4.9	9.3	1.7	0.9	1.1
Hsingkang, China	0.1	1.8	5.1	-	0.3	0.6
Other	52.3	44.4	26.4	13.6	8.1	2.8
Total	385.6	557.5	882.1	100.0	100.0	100.0
Western Europe						
Valencia, Spain	6.8	6.4	11.6	7.7	8.0	14.8
Algeciras, Spain	6.3	5.1	9.5	7.2	6.3	12.1
Livorno, Italy	8.5	12.4	8.9	9.7	15.4	11.4
Antwerp, Belgium	1.4	1.2	7.0	1.6	1.5	8.9
Rotterdam, Netherlands	8.1	9.8	6.2	9.2	12.2	7.9
Le Havre, France	10.8	6.5	6.1	12.3	8.1	7.8
Bremerhaven, West Germany	5.8	8.0	5.4	6.6	10.0	6.9
Other	40.1	31.0	23.7	45.7	38.5	30.2
Total	87.8	80.4	78.4	100.0	100.0	100.0
South America						
Callao, Peru	2.8	46.7	19.1	2.0	62.3	32.2
Valparaiso, Chile	14.1	9.7	15.0	9.9	13.0	25.3
Antofagasta, Chile	0.2	13.5	7.6	0.1	18.0	12.8
San Antonio, Chile	0.1	0.4	7.1	0.1	0.5	12.0
Other	125.7*	4.6	10.6	87.9	6.2	17.7
Total	142.9	74.9	59.4	100.0	100.0	100.0

* Some 62 thousand metric tons originated from the port of Puerto Miranda, Venezuela and another 52 thousand tons from the port of Punta Cardon, Venezuela.

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

Table 5.14

CANADIAN DIVERTED IMPORTS VIA THE UNITED STATES
BY MAJOR AGGREGATED COMMODITY GROUP
1982-1984

(in thousand of metric tons and percentages)

Commodity Groups	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Food Products	134.8	121.2	133.9	15.9	15.9	12.6
Beverages and Tobacco	34.0	23.2	17.7	4.0	3.0	1.7
Raw Materials	41.1	64.3	53.7	4.9	8.4	5.0
Mineral Fuels, Lubricants and Related Products	-	-	-	-	-	-
Oils and Greases	0.3	0.5	0.9	-	0.1	0.1
Chemicals	288.8	44.3	35.8	34.0	5.8	3.4
Manufactured Goods	131.6	151.0	190.9	15.5	19.8	18.0
Machinery and Equipment	59.6	77.4	155.5	7.0	10.1	14.6
Automobiles	39.0	125.8	244.3	4.6	16.5	23.0
Finished Products	120.1	156.0	229.1	14.1	20.4	21.6
Other	0.1	-	-	-	-	-
Total	849.4	763.7	1 061.8	100.0	100.0	100.0

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

Table 5.15

CANADIAN DIVERTED IMPORTS VIA THE UNITED STATES
BY MAJOR TYPE OF COMMODITIES
1982-1984

(in thousand of metric tons)

Commodities	Tonnages			Percentages		
	1982	1983	1984	1982	1983	1984
Road vehicles	39.0	125.8	244.3	4.6	16.5	23.0
Miscellaneous end products, N.E.S.	61.7	79.8	142.4	7.3	10.5	13.4
Fruits and vegetables	96.9	77.3	82.0	11.4	10.0	7.7
Metal fabricated products, N.E.S.	28.5	34.9	64.0	3.3	4.6	6.0
Electric Machines and Equipment	13.7	19.2	53.2	1.6	2.5	5.0
Apparel and Accessories	30.4	37.7	49.1	3.6	5.0	4.6
Telecommunications and sound recording equipment	23.8	35.3	44.8	2.8	4.6	4.2
Thread, textile end products	18.9	30.3	34.5	2.2	4.0	3.3
Rubber, including synthetics and allied gums	8.8	18.6	26.2	1.0	2.4	2.5
Non-metallic mineral products	20.5	17.1	22.8	2.4	2.2	2.2
Office machines and data processors	2.6	3.5	20.2	0.3	0.5	1.9
Non-ferrous metals	21.7	16.5	18.1	2.6	2.2	1.7
Iron and Steel	21.4	16.5	17.9	2.5	2.2	1.7
Beverages	33.5	22.7	17.5	4.0	3.0	1.7
Metallic minerals and scrap, N.E.S.	20.0	40.6	17.2	2.3	5.3	1.6
Miscellaneous Chemical Products, N.E.S.	275.8	8.9	9.0	32.5	1.1	0.8
Total	717.2	584.7	863.2	84.4	76.6	81.3

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

Table 5.16

COMMODITY CONCENTRATION OF CANADIAN IMPORT TRADE VIA THE PORTS OF NEW YORK AND SEATTLE BY MAJOR COUNTRY OF ORIGIN
1984

A: Via New York

Asian Countries (111.8 thousand metric tons)

Singapore	26.4%	1 product = 67.5%
Taiwan	23.9%	3 products = 51.7%
Japan	20.9%	2 products = 39.6%
Hong Kong	13.9%	4 products = 60.9%
Other	14.9%	
	100.0	

Western European Countries (59.3 thousand metric tons)

Spain	42.7%	1 product = 55.2%
Italy	22.5%	3 products = 51.5%
West Germany	9.2%	1 product = 64.2%
France	7.6%	2 products = 59.8%
Other	18%	
	100.0	

Central American Countries (10.6 thousand metric tons)

Dominican Republic	31.6%	2 products = 95.2%
Honduras	26.2%	2 products = 100%
Jamaica	17.5%	4 products = 89.7%
Costa Rica	8.8%	2 products = 76.6%
Other	15.9%	
	100.0	

B: Via Seattle

Asian Countries (668.2 thousand metric tons)

Japan	61.7	6 products = 78.0%
Taiwan	18.7	2 products = 50.3%
South Korea	10.1	3 products = 50.8%
Hong Kong	8.8	3 products = 51.3%
Other	0.7	
	100.0	

Source: Canadian Transport Commission, Research Branch, based on the United States Bureau of the Census, Magnetic Tapes SA 305, "U.S. Waterborne Imports".

FOOTNOTES

[1] 223.4 thousand metric tons of "Metallic Minerals and Scrap, n.e.s." were shipped via Skagway to various Japanese ports in 1982; 23.6 thousand metric tons of "Organic Chemical Products" via Houston to the port of Rotterdam.

[2] 272.3 thousand metric tons of "Miscellaneous Chemical Products, n.e.s." were shipped via Portland from Trinidad (113.9), Netherland Antilles (45.4) and Venezuela (113), in 1982; 81.7 thousand metric tons of "Road Vehicles" most of which were transported on the Tokyo-Seattle route in 1983; 194.3 thousand metric tons of "Road Vehicles" most of which followed the Kobe-Seattle route in 1984.

Chapter 6

AMERICAN OVERSEAS DIVERTED TRADE

This chapter describes some of the principal characteristics of American overseas trade diverted via Canada. However, American statistics published in the last three issues of "U.S. Exports and Imports Transshipped via Canadian Ports" present some detailed information only for the years 1984, 1981 and 1979. Furthermore, a full period comparison is only possible in terms of major American customs district and of dominant overseas countries of destination or origin.

6.1 Export Trade

Total U.S. exports diverted via Canadian ports registered a yearly average growth of 10% between 1979 and 1984. As Table 6.1 indicates, a progressively larger share of exports was moved through Eastern U.S. customs districts: their share has reached a high of 81% in 1984 from 67% in 1979. The customs district of Detroit was the principal and increasingly dominant crossing border point for American diverted exports accounting for 55% of the total diverted trade in 1984. Exports exiting the U.S.A. via Ogdensburg in the State of New York have also increased in magnitude from 1979 to 1984, with a yearly average growth of 37%. In contrast, the customs district of Buffalo handled a lesser share of diverted exports in 1984 than in 1979.

With respect to Western U.S. customs districts, the volume of exports handled in the Seattle district (although still dominant) has declined significantly over the five years, with a yearly average rate of 7%. In comparison, the volume of diverted exports through the district of Pembina in North Dakota, increased considerably from 5 thousand metric tons in 1979 to 69 thousand tons in 1984. Hence the share of the Pembina district, although marginal at the national level, has rised from a low 2% in 1979 to a high 26% in 1984, of total Western districts.

As is seen in Table 6.2, American diverted exports are highly concentrated in Western Europe. In 1984, Western European countries accounted for three-quarters of the total diverted exports. Among the Western European countries, the United Kingdom

was the most important, receiving a quarter of all American diverted exports via Canadian ports in 1984. In general, for other European countries, the volume of traffic thus diverted either rises or remains more or less stable over the period.

Concerning diverted traffic to Asia, the decreasing importance of Japan is worth noting which accounted for 7% of the total diverted U.S. exports in 1984, down from 13% in 1979. Diverted cargo destined for the U.S.S.R. was negligible in 1979. However, with the imposition of an American trade embargo against the Soviet Union, diverted trade increased drastically from 0.1 thousand metric tons in 1979 to 58.2 thousand tons in 1981. A subsequent relaxation of the embargo reduced the extent of diversion to 24.5 thousand metric tons in 1984.

In short, there has been no significant shift in the flow pattern of American diverted exports via Canadian ports. Throughout the five year period examined, most of the U.S. exports exited through the Eastern seaboard ports and were destined for Western Europe.

6.2 Import Trade

Similar to the export trade, the volume of U.S. imports via Canadian ports has increased substantially from 1979 to 1984, with an annual average growth of 8.4%. As shown in Table 6.3, more than nine-tenths of the total diverted import trade have been cleared in Eastern U.S. customs districts. The two leading customs districts of cargo clearance, Chicago and Detroit, showed contrasting trends, however. While the volume of imports handled at Chicago rose from 235 thousand metric tons in 1979 to 439 thousand tons in 1984, the volume in Detroit declined to 320 thousand metric tons in 1984 from 455 thousand tons in 1979. Buffalo and Detroit were the only two customs districts exhibiting a steadily shrinking share of total diverted imports. Most of the other customs districts handled more tonnage in 1984 than in 1979. In particular, the greater importance of Minneapolis in Minnesota, Milwaukee in Wisconsin and Cleveland in Ohio are worth noting. These cities also correspond to American railway hub centres, served by either Soo Line or Grand Trunk Western. Indeed, their growth as inland points of cargo clearance might be an indication of how intermodal developments by way of rail interline connections could both diversify and stretch liner shipping penetration into remote inland markets. On the west coast, only Seattle stands out as a major point of

clearance for diverted U.S. imports. However, the volume of the import traffic handled in this latter district has fluctuated, offering no perceptible trend.

As Table 6.4 indicates, the pattern of diverted U.S. imports is largely and increasingly dominated by Western Europe. More than 73% of total diverted imports were of Western European origin in 1984 compared to 62% in 1981 and 58% in 1979. West Germany, the leading country of origin, accounted for more tonnage in 1984 than in 1979 (382 thousand metric tons compared to 265 thousand tons, representing an increase of 44% over the five years). With a considerable growth of diverted trade (a 156% rise between 1981 and 1984), France is the second largest country of origin in 1984, surpassing the United Kingdom. Like all other European countries, the United Kingdom nevertheless accounted for a larger share at the end of the five years period than at the beginning. The volume of imports from Japan, the most important country of origin in Asia, expanded throughout the period and its share has remained more or less constant from 1981 to 1984. Finally, diverted imports originating from Australia decreased tremendously, from 146 thousand metric tons in 1979 to 13 thousand tons in 1984.

In light of the above, it can be stated that the bulk of American diverted imports is via the eastern U.S. customs districts and is of Western European origin. A number of changes have been seen such as the decline of Detroit as a leading clearance point and the rise of Chicago customs district. Also worth noting is that Australia's share in total diverted imports has significantly declined between 1979 and 1984. These, and other changes, describe the general trend of American diverted imports over the five years period.

Table 6.1

INTERIOR U.S. POINTS OF CLEARANCE OF AMERICAN EXPORT TRADE DIVERTED VIA CANADA
1979, 1981, 1984

(in thousand of metric tons and percentages)

U.S. Districts	Tonnages			Percentages		
	1984	1981	1979	1984	1981	1979
Detroit, Michigan	747.3	541.6	396.5	54.0	50.0	44.0
Ogdensburg, New York	213.8	111.1	75.4	15.5	10.3	8.4
St. Albans, Vermont	61.2	68.9	33.4	4.4	6.4	3.7
Buffalo, New York	50.2	62.8	62.1	3.6	5.8	6.9
Portland, Maine	49.4	64.6	36.2	3.6	6.0	4.0
Other Eastern U.S.	0.1	1.1	2.7	-	0.1	0.3
Total Eastern U.S.	1 122.0	850.1	606.3	81.1	78.6	67.3
Seattle, Washington	191.1	194.4	288.8	13.9	18.0	32.1
Pembina, North Dakota	68.9	35.3	5.0	5.0	3.3	0.6
Other Western U.S.	1.0	1.3	0.5	-	0.1	-
Total Western U.S.	261.0	231.0	294.3	18.9	21.4	32.7
Total	1 383.0	1 081.1	900.6	100.0	100.0	100.0

Source: U.S. Department of Transportation, Maritime Administration, "U.S. Exports and Imports Transshipped via Canadian Ports", issues of October 1985, July 1983 and March 1981.

Table 6.2

MAJOR OVERSEAS COUNTRIES OF DESTINATION
OF AMERICAN EXPORT TRADE VIA CANADA
1979, 1981, 1984

(in thousand of metric tons and percentages)

Countries of Destination	Tonnages			Percentages		
	1984	1981	1979	1984	1981	1979
United Kingdom	329.0	234.2	172.1	23.8	21.7	19.1
West Germany	180.4	116.8	102.6	13.0	10.8	11.4
Netherlands	161.7	134.2	163.2	11.7	12.4	18.1
Belgium/Luxembourg	134.5	109.3	83.2	9.7	10.1	9.2
France	101.1	88.7	97.6	7.3	8.2	10.8
Japan	98.0	124.1	116.6	7.1	11.5	13.0
Italy	48.9	37.1	39.7	3.5	3.4	4.4
Sweden	27.9	9.8	8.9	2.0	0.9	1.0
U.S.S.R.	24.5	58.2	0.1	1.8	5.4	-
Switzerland	23.9	19.4	17.0	1.7	1.8	1.9
Other	253.1	149.3	99.6	18.4	13.8	11.1
Total	1 383.0	1 081.1	900.6	100.0	100.0	100.0

Source: U.S. Department of Transportation, Maritime Administration. "U.S. Exports and Imports Transshipped via Canadian Ports", issues of October 1985, July 1983 and March 1981.

Table 6.3

INTERIOR U.S. POINTS OF CLEARANCE OF AMERICAN IMPORT TRADE DIVERTED VIA CANADA
1979, 1981, 1984

(in thousand of metric tons and percentages)

U.S. Districts	Tonnages			Percentages		
	1984	1981	1979	1984	1981	1979
Chicago, Illinois	438.9	287.7	235.0	24.9	22.2	18.9
Detroit, Michigan	319.9	336.8	455.3	18.1	26.0	36.6
St. Albans, Vermont	178.7	60.4	34.8	10.1	4.7	2.8
Minneapolis, Minnesota	159.0	23.0	19.9	9.0	1.8	1.6
Ogdensburg, New York	136.1	96.7	68.0	7.7	7.5	5.4
Buffalo, New York	114.1	101.1	255.0	6.5	7.8	20.5
Milwaukee, Wisconsin	110.7	59.9	33.5	6.2	4.6	2.7
Cleveland, Ohio	78.2	32.2	18.8	4.4	2.5	1.5
New York, New York	67.4	101.4	29.5	3.8	7.9	2.3
Boston, Massachussetts	26.4	19.5	7.4	1.5	1.5	0.6
Portland, Maine	15.5	27.4	10.7	0.9	2.1	0.9
Other Eastern U.S.	29.7	52.8	31.3	1.7	4.1	2.5
Total Eastern U.S.	1 674.6	1 198.9	1 199.2	94.8	92.7	96.3
Seattle	78.3	84.9	35.5	4.4	6.5	2.8
Other Western U.S.	13.3	10.1	10.7	0.8	0.8	0.9
Total Western U.S.	91.6	95.0	46.2	5.2	7.3	3.7
Total	1 766.2	1 293.8	1 245.5	100.0	100.0	100.0

Source: U.S. Department of Transportation, Maritime Administration, "U.S. Exports and Imports Transshipped via Canadian Ports", issues of October 1985, July 1983 and March 1981.

Table 6.4

MAJOR COUNTRIES OF ORIGIN OF AMERICAN
OVERSEAS IMPORT TRADE VIA CANADA
1979, 1981, 1984

(in thousand of metric tons and percentages)

Countries of Origin	Tonnages			Percentages		
	1984	1981	1979	1984	1981	1979
West Germany	381.8	266.3	265.1	21.6	20.6	21.3
France	310.2	121.4	113.7	17.6	9.4	9.1
United Kingdom	258.4	222.7	169.1	14.6	17.2	13.6
Belgium/Luxembourg	107.8	70.8	103.6	6.1	5.5	8.3
Netherlands	103.8	69.2	28.9	5.9	5.4	2.3
Japan	92.8	71.7	34.0	5.3	5.5	2.7
Italy	43.2	26.5	24.2	2.4	2.1	1.9
Sweden	40.9	6.6	3.9	2.3	0.5	0.3
Switzerland	28.7	16.1	13.5	1.6	1.2	1.1
Denmark	20.4	7.1	2.8	1.2	0.5	0.2
Australia	12.7	25.6	145.6	0.7	2.0	11.7
Other	365.5	389.9	341.0	20.7	30.1	27.5
Total	1 766.2	1 293.9	1 245.4	100.0	100.0	100.0

Source: U.S. Department of Transportation, Maritime Administration, "U.S. Exports and Imports Transshipped via Canadian Ports", issues of October 1985, July 1983 and March 1981.

APPENDIX 1

TRAFFIC CONCENTRATION OF
CANADIAN OVERSEAS TRADE TRANSSHIPPED THROUGH
NEW YORK AND SEATTLE
IN 1984

(in percentage of metric tonnage)

CANADIAN EXPORTS
VIA NEW YORK
1984

ASIA

Country	%	Products (number)	Commodity Description	%
INDONESIA	16.9		Resin, rubber and synthetic plastic	80.7
		1	Subtotal	80.7
		28	Other	19.3
		29	Total	100.0
CHINA	15.4		Resin, rubber and synthetic plastic	62.8
			Thread, textile end products	11.5
		2	Subtotal	74.3
		20	Other	25.7
		22	Total	100.0
JAPAN	14.4		Meat and meat preparations	71.7
			Fish and fish preparations	10.2
		2	Subtotal	81.9
		35	Other	18.1
		37	Total	100.0
SINGAPORE	14.1		Oil seed, oil fruit	36.1
			Resin, rubber and synthetic plastic	22.1
			Paper and cardboard products	10.0
		3	Subtotal	68.2
		39	Other	31.8
		42	Total	100.0
THAILAND	10.6		Fertilizer and crude minerals	61.1
			Crude textile fibres and fibre waste	12.4
			Resin, rubber and synthetic plastic	10.0
		3	Subtotal	83.5
		31	Other	16.5
		34	Total	100.0
OTHER ASIAN COUNTRIES	28.6			
TOTAL	100.0			

CANADIAN EXPORTS
VIA NEW YORK
1984

SOUTH AMERICA

Country	%	Products (number)	Commodity Description	%
CHILE	26.0		Resin, rubber and synthetic plastic	27.9
			Fertilizer and crude minerals	15.3
			Milk products and eggs	11.3
		3	Subtotal	54.5
		33	Other	45.5
		36	Total	100.0
BRAZIL	18.2		Rubber, incl. synthetics and allied	53.6
			Road vehicles	26.2
			Miscellaneous chemical products, nes	9.1
		3	Subtotal	88.9
		18	Other	11.1
		21	Total	100.0
ECUADOR	14.9		Non-ferrous metals	41.3
		1	Subtotal	41.3
		28	Other	58.7
		29	Total	100.0
PERU	10.7		Thread, textile end products	32.0
			Crude textile fibres and fibre waste	28.3
			Resin, rubber and synthetic plastic	9.6
			Miscellaneous chemical products, nes	9.3
		4	Subtotal	79.2
		27	Other	20.8
		31	Total	100.0
OTHER SOUTH AMERICAN COUNTRIES	30.2			
TOTAL	100.0			

CANADIAN EXPORTS
VIA NEW YORK
1984

CENTRAL AMERICA

Country	%	Products (number)	Commodity Description	%
BERMUDA	31.6		Fruits and Vegetables	14.7
			Paper and cardboard products	11.9
			Wood, wood fabricated materials	11.9
			Animal feed, except unground cereals	12.0
		4	Subtotal	50.5
		44	Other	49.5
		48	Total	100.0
PANAMA	30.8		Special industry machinery	33.7
			Fruits and vegetables	25.4
		2	Subtotal	59.1
		38	Other	40.9
		40	Total	100.0
TRINIDAD	12.4		Electric machines and equipment	43.0
			Wood, wood fabricated materials, cork	16.1
		2	Subtotal	59.1
		30	Other	40.9
		32	Total	100.0
DOMINICAN REPUBLIC	12.2		Meat and meat preparations	34.5
			Iron and steel	17.1
			Cereals, flour and preparations	14.8
		3	Subtotal	66.4
		15	Other	33.6
		18	Total	100.0
OTHER CENTRAL AMERICAN COUNTRIES	13.0			
TOTAL	100.0			

CANADIAN EXPORTS
VIA NEW YORK
1984

WESTERN EUROPE

Country	%	Products (number)	Commodity Description	%
UNITED KINGDOM	43.9		Meat and meat preparations	29.1
			Animal feed, except unground cereals	19.5
			Misc. food preparations	10.7
		3	Subtotal	59.3
		27	Other	40.7
		30	Total	100.0
FRANCE	15.9		Meat and meat preparations	39.7
			Fish and fish preparations	24.0
			Photographic equip., optical materials	11.9
		3	Subtotal	75.6
		15	Other	24.4
		18	Total	100.0
WEST GERMANY	14.0		Road Vehicles	22.5
			Industrial machinery and parts, nes	17.6
			Special industry machinery	12.4
			Meat and meat preparations	9.6
		4	Subtotal	62.1
		12	Other	37.9
		16	Total	100.0
NETHERLANDS	9.3		Meat and meat preparations	17.9
			Office machines and data processors	14.9
			Road vehicles	12.0
			Metal fabricated products, nes	11.8
		4	Subtotal	56.6
		17	Other	43.4
		21	Total	100.0
OTHER WESTERN EUROPEAN COUNTRIES	16.9			
TOTAL	100.0			

CANADIAN IMPORTS
VIA NEW YORK
1984

ASIA

Country	%	Products (number)	Commodity Description	%
SINGAPORE	26.4		Rubber, incl. synthetics and allied	67.5
		1	Subtotal	67.5
		40	Other	32.5
		41	Total	100.0
TAIWAN	23.9		Miscellaneous end products	20.9
			Metal fabricated products, nes	16.4
			Road vehicles	14.4
		3	Subtotal	51.7
		43	Other	48.3
		46	Total	100.0
JAPAN	20.9		Industrial machinery and parts, nes	27.9
			Miscellaneous end products	11.7
		2	Subtotal	39.6
		40	Other	60.4
		42	Total	100.0
HONG KONG	13.9		Miscellaneous end products	24.9
			Apparel and accessories	12.3
			Thread, textile end products	12.2
			Rubber, incl. synthetics and allied	11.5
		4	Subtotal	60.9
		39	Other	39.1
		43	Total	100.0
OTHER ASIAN COUNTRIES	14.9			
TOTAL	100.0			

CANADIAN IMPORTS
VIA NEW YORK
1984

EUROPE

Country	%	Products (number)	Commodity Description	%
SPAIN	42.7		Fruits and vegetables	55.2
		1	Subtotal	55.2
		31	Other	44.8
		32	Total	100.0
ITALY	22.5		Fruits and Vegetables	25.2
			Beverages	15.0
			Non-metallic products	11.3
		3	Subtotal	51.5
		35	Other	48.5
		38	Total	100.0
WEST GERMANY	9.2		Road vehicles	64.2
		1	Subtotal	64.2
		25	Other	35.8
		26	Total	100.0
FRANCE	7.6		Beverages	41.4
			Fruits and vegetables	18.4
		2	Subtotal	59.4
		27	Other	40.6
		29	Total	100.0
OTHER EUROPEAN COUNTRIES	18.0			
TOTAL	100.0			

CANADIAN IMPORTS
VIA NEW YORK
1984

CENTRAL AMERICA

Country	%	Products (number)	Commodity Description	%
DOMINICAN REPUBLIC	31.6		Coffee, cocoa, tea and spices	54.7
			Fruits and vegetables	40.5
		2	Subtotal	95.2
		5	Other	4.8
		7	Total	100.0
HONDURAS	26.2		Meat and meat preparations	87.0
			Coffee, cocoa, tea and spices	13.0
		2	Total	100.0
JAMAICA	17.5		Beverages	32.5
			Misc. food and preparations	25.6
			Fruits and vegetables	22.1
			Coffee, cocoa, tea and spices	9.5
		4	Subtotal	89.7
		10	Other	10.3
		14	Total	100.0
COSTA RICA	8.8		Coffee, cocoa, tea and spices	50.8
			Fruits and vegetables	5.8
		2	Subtotal	76.6
		7	Other	23.4
		9	Total	100.0
OTHER CENTRAL AMERICAN COUNTRIES	15.9			
TOTAL	100.0			

CANADIAN EXPORTS (1 of 2)
VIA SEATTLE
1984

ASIA

Country	%	Products (number)	Commodity Description	%
JAPAN	32.1		Wood, wood fabricated materials	60.5
			Paper and cardboard products	11.3
		2	Subtotal	71.8
		50	Other	28.2
		52	Total	100.0
SOUTH KOREA	28.6		Pulp and paper waste	54.1
			Leather, hides and crude pelts	16.5
			Wood, wood fabricated materials	10.3
		3	Subtotal	80.9
		41	Other	19.1
		44	Total	100.0
TAIWAN	13.3		Pulp and paper waste	51.0
			Non-ferrous metals	14.0
			Resin, rubber and synthetic plastic	8.4
		3	Subtotal	73.4
		46	Other	26.6
		49	Total	100.0
THAILAND	6.0		Nonferrous metals	40.7
			Milk products and eggs	18.6
			Crude textile fibres and fibre waste	13.1
			Fertilizer and crude minerals	12.0
			Resin, rubber and synthetic plastic	11.6
		5	Subtotal	96.0
		22	Other	4.0
		27	Total	100.0
SINGAPORE	5.4		Paper and cardboard products	64.1
			Pulp and paper waste	20.3
		2	Subtotal	84.4
		30	Other	15.6
		32	Total	100.0

CANADIAN EXPORTS (2 of 2)
VIA SEATTLE
1984

ASIA

Country	%	Products (number)	Commodity Description	%
HONG KONG	3.9		Paper and cardboard products	21.8
			Non-ferrous metals	13.7
			Miscellaneous food preparations	11.5
			Resin, rubber and synthetic plastic	10.8
			Fruits and vegetables	10.6
		5	Subtotal	68.4
		44	Other	31.6
		49	Total	100.0
INDIA	2.4		Wood and wood fabricated materials	37.2
			Crude textile fibres and fibre waste	15.6
			Pulp and paper waste	15.0
			Fruits and vegetables	11.0
			Inorganic chemical products	9.4
		5	Subtotal	88.2
		18	Other	11.8
		23	Total	100.0
MALAYSIA	1.6		Paper and cardboard products	70.6
		1	Subtotal	70.6
		32	Other	29.4
		33	Total	100.0
PHILIPPINES	1.6		Pulp and paper waste	51.3
			Non-ferrous metals	16.9
			Resin, rubber and synthetic plastic	11.2
		3	Subtotal	79.4
		25	Other	20.6
		28	Total	100.0
INDONESIA	1.5		Resin, rubber and synthetic plastic	40.8
			Paper and cardboard products	24.8
			Non-ferrous metals	13.2
		3	Subtotal	78.8
		14	Other	21.2
		17	Total	100.0
OTHER ASIAN COUNTRIES	3.6			
TOTAL	100.0			

CANADIAN IMPORTS
VIA SEATTLE
1984

ASIA

Country	%	Products (number)	Commodity Description	%
JAPAN	61.7		Road vehicles	55.0
			Telecommunications & sound equipment	7.0
			Miscellaneous end products	6.0
			Metal fabricated prod.	4.0
			Electric machines & equipment	3.0
			Apparel & accessories	3.0
		6	Subtotal	78.0
		48	Other	22.0
		54	Total	100.0
TAIWAN	18.7		Electric machines and equipment	25.8
			Miscellaneous end products	24.5
		2	Subtotal	50.3
		48	Other	49.7
		50	Total	100.0
SOUTH KOREA	10.1		Miscellaneous end products	24.1
			Metal fabricated products	16.4
			Telecommunications & sound equipment	10.3
		3	Subtotal	50.8
		39	Other	49.2
		42	Total	100.0
HONG KONG	8.8		Miscellaneous end products	26.8
			Apparel and accessories	13.3
			Metal fabricated products, nes	11.2
		3	Subtotal	51.3
		48	Other	48.7
		51	Total	100.0
OTHER ASIAN COUNTRIES	0.7			
TOTAL	100.0			